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ABSTRACT

The perceived staff development needs and preferences of teachers in selected middle and junior high schools involved in individualized schooling were the topics of this research. Inservice education strategies preferred by teachers and principals were identified and functional and dysfunctional aspects of programs analyzed. A field study methodology was used employing visits to schools and interviews with school personnel following their response to uniformly administered questionnaires. Findings indicated that identification of needed inservice activities and preferences for design of inservice programs varied according to individual differences among teachers with considerable variation between the perceptions of the principals of the schools and those of the teachers. Methods for improving staff development are considered, and suggestions for further research are made. A copy of the instrument used is appended. (JD)

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Technical Report No. 519

STAFF DEVELOPMENT NEEDS IN MIDDLE AND JUNIOR HIGH SCHOOLS THAT INDIVIDUALIZE INSTRUCTION

by Judy Brown Lehr

June 1979

Wisconsin Research
and Development Center
for Individualized Schooling

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by

Judy Brown Lehr

Report from the Project on
Studies of Administration and Organization for Instruction

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for Individualized Schooling
The University of Wisconsin
Madison, Wisconsin

June 1979

This Technical Report is a doctoral dissertation reporting research supported by the Wisconsin Research and Development Center for Individualized Schooling. Since it has been approved by a University Examining Committee, it has not been reviewed by the Center. It is published by the Center as a record of some of the Center's activities and as a service to the student. The bound original is in the University of Wisconsin Memorial Library.

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MISSION STATEMENT

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling. Teaching, learning, and the problems of individualization are given concurrent attention in the Center's efforts to discover processes and develop strategies and materials for use in the schools. The Center pursues its mission by

- conducting and synthesizing research to clarify the processes of school-age children's learning and development
- conducting and synthesizing research to clarify effective approaches to teaching students basic skills and concepts
- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

The Wisconsin Research and Development Center is supported with funds from the National Institute of Education and the University of Wisconsin.

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CENTER FOR INDIVIDUALIZED SCHOOLING

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Abstract

STAFF DEVELOPMENT NEEDS IN MIDDLE AND JUNIOR HIGH SCHOOLS THAT INDIVIDUALIZE INSTRUCTION

Judy Brown Lehr

Under the Supervision of Professor James M. Lipham

The purposes of this study were: (1) to identify the staff development topical needs of teachers engaged in individualizing schooling, (2) to identify the staff development strategies preferred by teachers engaged in individualizing schooling, and (3) to analyze the functional and dysfunctional aspects of strategies of staff development. In addition, the relationship of certain personal variables to staff development needs was explored and a total synthesis of a model staff development program was constructed. The study consisted of an intensive, in-depth analysis of ten selected school staffs using survey field methodology techniques.

Constructs from the IGE and staff development literature and theories of change and social systems provided the framework from which a series of questions addressing both topical and structural aspects of staff development programs were posited. Questionnaires and semi-structured interviews with both teachers and principals were used to collect the data.

The major conclusions concerning staff development needs in middle and junior high schools which individualize schooling were:

1. Respondents' identifications of needed inservice activities varied according to the individual differences between teachers and principals. All 22 identified topics were recognized by teachers and principals as being potentially useful. Specifically, those identified by teachers in which a need may be inferred included "uses of the computer in managing instruction," "student motivation," and "student learning experiences within the community." Principals identified 20 of the 22 topics as being needed by their respective staffs. "Student motivation", "student personal, social, emotional, and moral development"; and "developing materials for the student advisee program" were seen by principals as being the most needed. When teachers were asked to recommend the topics most beneficial to someone wishing to improve instruction they chose "techniques for motivating students," "organizing curriculum to secure continuous progress for each student," and "student grouping to personalize instruction."
2. Teachers' preferences for the design of an inservice program varied according to individual differences. Teachers preferred active rather than passive learning

modes and to have the responsibility for their own learning. Professional growth was recognized as an added job skill and one that should be learned within the confines of the regular working day.

3. Teacher motivation to participate in inservice activities resulted from a number of separate stimuli, financial aspects being the most important and multifaceted. Dysfunctional conditions resulted when job responsibilities prevented participation or when funds were not available to allow teachers' travel to meaningful programs. However, when principals were asked to identify teacher readiness to participate in inservice activities, they indicated that lack of teacher motivation was an impediment. Principals did not identify financial aspects as primary motivators for teacher participation but that the quality of program, inservice history, and time waste were inservice detractors. To principals, the lack of funds to hire skilled trainers was a major impediment.

Based on the findings, a number of implications for practice and for future research were delineated.

APPROVED James M Lyle

DATE May 17, 1994

CHAPTER I

INTRODUCTION TO THE STUDY

During recent years educators have become increasingly interested in staff development or inservice training. This has occurred for several reasons. First, the end of the teacher shortage has resulted in the relative stability and possible staleness of the teaching force; second, the tightening of school budgets has focused considerable emphasis on accountability; third, the growth of professional educational organizations or unions has caused professional growth to become an issue for negotiations; and fourth, expansion of the educational knowledge base has identified additional areas and methods for teacher growth. The recommended major vehicle for meeting the challenges and overcoming the obstacles is that of staff development programs (Rubin, 1978; Davis, 1978; Bishop, 1977; Sergiovanni, 1975; Cogan, 1975; and Harris, 1963). To address these issues, schools, universities and professional agencies are expending time, energy, and financial resources designing and sponsoring inservice activities.

The Wisconsin Research and Development Center for Individualized Schooling, in particular, has emphasized staff development in its design and implementation of the Individually Guided Education (IGE) system. Klausmeier (1977, p. 9) stated, "Staff development

programs are crucial to the successful implementation of this major educational change."

The purposes of this study were: (1) to identify the staff development topical needs of teachers engaged in individualizing schooling, (2) to identify the staff development strategies preferred by teachers engaged in individualizing schooling, and (3) to analyze the functional and dysfunctional aspects of strategies of staff development. In addition, the relationship of certain personal variables to staff development needs was explored and a total synthesis of a model staff development program was constructed.

Background of the Study

Although staff development could be studied in any school, this research focused on schools involved in individualized schooling through their association with the Wisconsin Research and Development Center's IGE Secondary Project.

Individually Guided Education (IGE), under continuous development by the R & D Center since 1964, is conceptualized as a comprehensive, alternative system of schooling designed to produce higher educational achievements by providing effectively for differences among students in rate of learning, learning style, and other characteristics (Klausmeier, 1975, p. 48). Administratively, IGE offers distinctive patterns for the organization and management of

instruction and learning environments; it promotes new sets of relationships with state, national, and university educational agencies and with the supporting local community; it incorporates coordinated strategies for continuing evaluation, refinement, and renewal; and it stimulates staff development and curriculum innovation (Chase, 1977, p. xi). Gibbons, in The New Secondary Education (1976) stated, "IGE is successful because it suggests a comprehensive strategy for improving the school whereby lasting change may occur."

Initially, the primary emphasis of the Wisconsin Research and Development Center was to aid schools to implement IGE at the elementary school level. Over 2,000 elementary schools across the country have done so. Based upon research and visits to IGE elementary schools, Klausmeier (1977d) concluded:

> High quality instruction is realized in IGE schools when conditions such as the following are operative: shared decision making, continuous pupil progress, personalized instruction, active learning, evaluation related to instructional objectives, involvement of parents and community support, and support by responsible educational agencies.

Some attempts were made prior to 1977 to extend the IGE program to secondary schools, but changes in Center staffing and disparate conceptual approaches limited these attempts.

In 1977, however, the R & D Center placed emphasis on the extension of IGE to the secondary level. Klausmeier developed a set of process objectives for IGE secondary schooling which he

presented at a Research and Development Center conference attended by personnel from innovative secondary schools. This first IGE Secondary Conference attracted middle, junior, and senior high school personnel from across the United States. Participants were asked to examine Klausmeier's process objectives (components) and indicate their desirability and feasibility with regard to possible implementation in their own schools. The resulting process objectives provided the framework for the development of the IGE secondary model (as depicted in Figure 1.1) which consists of the following ten comprehensive objectives (Klausmeier, 1979).

Comprehensive Objective 1. Administrative Arrangements

Decision-making groups are formed that include district committees and councils and also building committees and councils. The primary purpose of these groups is to facilitate shared decision making among persons, mainly among the administrators, counselors, and teachers who are responsible for carrying out the decisions. The membership of the committees and councils include representatives of these groups. At the district level, one basic decision-making committee, sometimes called a Systemwide Program Committee or Council (SPC), deals with matters related to curriculum, instruction, and student advisement at the district level. At the building level, one basic decision-making committee, sometimes called the Instructional Improvement Committee (IIC), deals

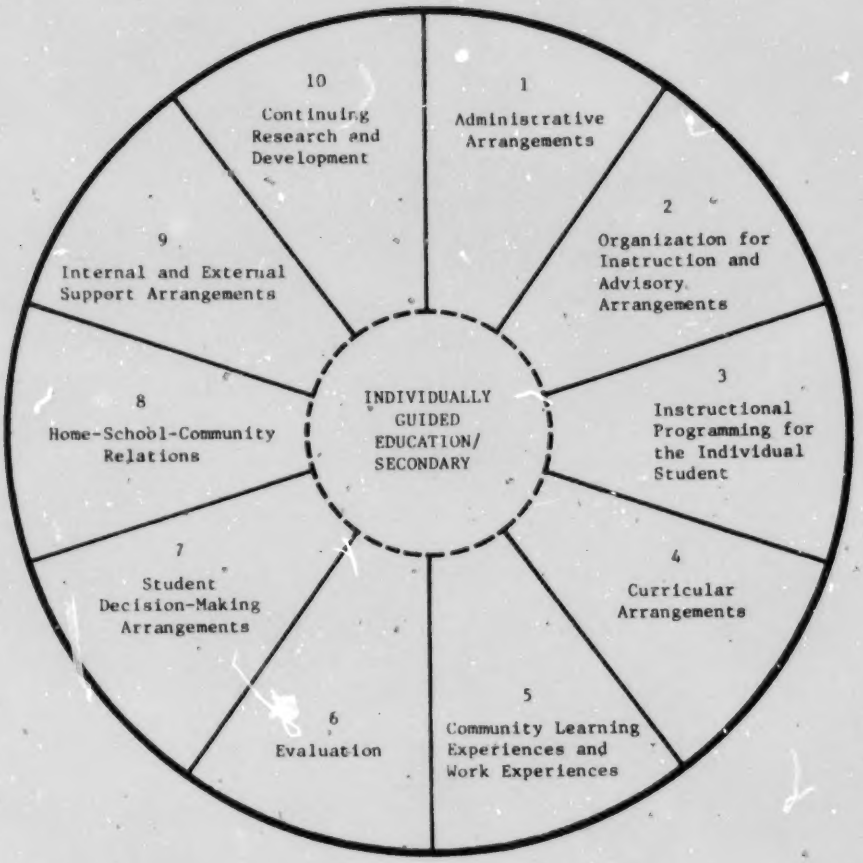

Figure 1.1. IGE/Secondary Model.

Adapted from: Klausmeier H. J. Profiles of selected innovating secondary schools. Working Paper No. 259. Madison: Wisconsin Research and Development Center for Individualized Schooling, 1979.

with matters related to curriculum, instruction, and student advisement at the building level. Two or more administrators of a building form an administrative team. Large schools may establish schools within the school and have two or more Instructional Improvement Committees, each headed by the principal, an assistant principal, or some other person from the administrative staff.

Comprehensive Objective 2. Organization for Instruction and Advisory Arrangements

Instruction and Advisory Units are formed consisting of 50 to 200 students and a cooperative team of two to five teachers, usually in the required curricular areas or courses. Each academic team is responsible for carrying out instruction in the academic subjects for the students of their unit and also for advising part or all of the students of their unit regarding educational and other matters. Each academic Instruction and Advisory Unit has a leader who is a teacher. The number of academic Instruction and Advisory Units in the school and the number of students and staff within each unit varies according to the level of schooling, the size of the school, and other local conditions. Other teams are formed that include the other teachers of the school. These teachers offer instruction in the other subject fields and also serve as advisors to students.

Comprehensive Objective 3. Instructional Programming for the Individual Student

This objective has three facets. First, at least once per semester a total educational program consisting of all the course work and other activities is planned by each individual student and the student's teacher/advisor that both meets the needs of the individual student and also contributes to meeting school and state requirements. Second, instruction is provided in each curricular area and course that meets the educational needs and other characteristics of each student enrolled in the course. This instruction is based on clearly stated, developmental objectives. Some of the objectives are stated for short time periods, such as a unit of instruction. Others are stated in more general terms as terminal objectives for a semester course or a series of courses. Some are stated in even more general terms as continuing objectives for a level of schooling, such as middle school, or for the entire period of schooling, kindergarten through grade 12. Third, how well each individual student and also groups of students, such as all of those of a grade or an I & A Unit, achieve desired outcomes during the current year is ascertained. Based upon this evaluation, goals are set for individual students and for groups of students to attain the same level, or a higher level, for the following year. The I & A Unit, the IIC, and the SPC, each at its appropriate level, share decision making regarding instructional programming for the individual student.

Comprehensive Objective 4. Curricular Arrangements

A curriculum is arranged that is sufficiently comprehensive and flexible so that each student, with the guidance of the student's teacher/advisor and parents, may take a total program of courses and other activities that is suited to the individual student's educational needs and other characterisitcs, and that also meets school, district, and state requirements. At the high school level, the curricular offerings include work experience in the community and other community learning experiences. To eliminate tracking at the high school level, courses are organized into clusters related to many different career fields and within such clusters students may prepare for job entry upon high school graduation, technical education upon graduation, or higher education in college or university. Typical curricular patterns are modified as necessary to meet the needs of gifted and talented students, students with learning disabilities, and others with handicapping conditions of any kind. The I & A Units, IIC, and SPC, each at its appropriate level, share decision making regarding the curriculum.

Comprehensive Objective 5. Community Learning Experiences and Work Experiences

A program of community learning activities and work experiences directly related to the characteristics of the school population and the community is planned, implemented, and evaluated at

district, school, and teacher-student levels. This is increasingly important at successively higher levels--middle school, junior high, or senior high school. In the senior high school, work experience for credit but without pay is arranged as part of the total educational program of any student desiring it. Work experience for credit but without pay or with pay is arranged as an integral part of the educational program of any student preparing for job entry upon graduating from high school.

Comprehensive Objective 6. Evaluation

Students' progress toward attaining the objectives of the units, classes, or courses in which they are enrolled, each student's total educational program, and the school's total educational program are monitored and improved through systematic evaluation. Each teacher on a daily and weekly basis uses appropriate evaluation techniques to ascertain each student's progress toward achieving unit or course objectives. At least once per semester each student's total educational program of course work and other activities is evaluated to ascertain how effectively it meets the student's educational needs and other characteristics. Prior to or at the beginning of each school year goals are set for individual students, various groups of students, and for the various curricular areas; evaluation directed toward ascertaining goal achievement is carried out annually.

Comprehensive Objective 7. Student Decision-Making Arrangements

Students progressively assume more responsibility for working independently with a lesser amount of adult direction and control. They also assume more responsibility for making decisions about their course objectives and activities, their complete educational programs, and their career preparation, including community learning activities and work experiences. As part of the total school governance arrangements, they participate as members of committees and councils in developing the policies and planning the programs and activities that they are responsible for carrying out.

Comprehensive Objective 8. Home-School-Community Relations

Cooperative efforts and effective communications between the school and the community are fostered. A program of home-school-community relations is planned, implemented, and evaluated at each the district, school, and I & A Unit levels. Parents or guardians of the students enrolled in the school are encouraged to participate in at least one conference per year with the student and the student's teacher/advisor and also to take initiative in the program of home-school-community relations.

Comprehensive Objective 9. Internal and External Support Arrangements

The environment for learning and instruction within the school and for work and nonwork educational experiences in the community is enriched through the intellectual, technical, and material

support provided by the I & A Units, IIC, and SPC and by external agencies, such as the state education agency and teacher-education institutions.

Comprehensive Objective 10. Continuing Research and Development

Student learning and personality development; curricular, instructional, and student-advising arrangements; school-community relations and community educative experiences; and administrative-organizational arrangements become better understood and are improved through continuous research and development conducted by school personnel and cooperating individuals and agencies. The I & A Units, the IIC, and the SPC share decision making and responsibility with external agencies for designing, carrying out, and using the results of the research and development conducted in the school.

At the second annual IGE Secondary Conference sponsored by the R & D Center, 121 practitioners from 18 states gathered in the Spring of 1978 to share successful school practices. Many of the IGE/Secondary components were already in place in many of the schools represented. Profiles of Successful Innovative Secondary Schools: Associated Network of IGE Middle, Junior, and Senior High Schools With Innovative Programs, 1978 (Lehr & Teicher, 1978) describes many of these schools. At the conference the results of five research studies sponsored by the R & D Center conducted at

selected innovative secondary schools were presented. The studies presented were those of T. Klausmeier (1978) and Maier (1978) who studied the desirability and feasibility of individualized schooling in the middle school and junior high and in senior high schools, and Watkins, Neiner, and Daresh (1978), in a companion research effort, who investigated the key areas of change, decision making, and facilitative environments in selected secondary schools that individualize instruction. All five researchers emphasized the importance of a strong staff development component when attempting to bring about educational change. Additionally, T. Klausmeier (1978) and Neiner (1978) found that teachers in secondary schools which are adopting change need staff development assistance in implementation in order to become committed to the new program. Clearly, it was becoming necessary for the R & D Center to explore the crucial area of staff development.

Statement of the Problem

The purposes of this study were: (1) to identify the staff development topical needs of teachers engaged in individualizing schooling, (2) to identify the staff development strategies preferred by teachers engaged in individualizing schooling, and (3) to analyze the functional and dysfunctional aspects of strategies of staff development. In addition, the relationship of certain personal variables to staff development needs was explored and a

total synthesis of a model staff development program was constructed. The study consisted of an intensive analysis of staff development programs by ascertaining perceptions and preferences of both teachers and principals through the use of questionnaires and personal interviews. Variables were considered in the context of the two major decision-making areas which encompass the planning of a staff development activity--program topic and the structure for providing the program. The following questions were addressed in this study:

I. Questions Dealing with Staff Development Needs:

1. To what extent are teachers interested in given topics for staff development activities designed to facilitate individualized schooling?

2. What are the perceived experiences of individual teachers in terms of topical areas in prior staff development activities?

3. What topical areas for staff development activities do teachers perceive need to be addressed, based on their experiences and needs?

4. What topical areas for staff development activities do principals feel teachers in their school need to more effectively implement individualized schooling?

5. What topical areas for staff development activities do teachers perceive as being most essential for improving schooling?

6. What is the relationship of total years of teaching experience, level of academic attainment and area of major teaching responsibility to teachers' perceived topical needs for staff development activities?

II. Questions Dealing with Preferred Staff Development Strategies:

7. What are teachers' perceptions regarding all modifiable aspects of the design of a staff development activity including: time structure-date, length and

frequency, learning strategies, program size, and characteristics of the teacher/trainer?

8. Who do principals feel should have primary responsibility for planning, organizing, and conducting inservice, professional development activities for teachers?

III. Questions Dealing with Functional and Dysfunctional Aspects of Strategies of Staff Development:

9. How much time would teachers be willing to devote to staff development activities?

10. How much time do teachers perceive they have devoted to staff development activities?

11. What factors do teachers identify as having hindered their prior participation in staff development programs?

12. What are teachers' perceptions of attractive rewards for attending inservice programs?

13. What is the perceived percentage of time the principal devotes to planning and implementing staff inservice programs?

14. What is the total amount and the sources of funds spent annually on staff development?

15. What is the relationship of the size of the school and the number of staff development activities offered to teachers?

16. What are the rewards offered to teachers for participating in staff development activities?

17. What are factors perceived by principals as hindering the more effective implementation of inservice programs?

Social systems theory, change theory, and staff development literature provided the theoretical basis for the research. Flexibility was allowed, however, to use additional constructs to explain unanticipated phenomena.

Review of the Literature

The purpose of this study was to survey middle and junior high school personnel about their staff development needs when implementing IGE/Secondary; it was not to test theory. Theory, however, provided the conceptual basis upon which the descriptive data could be focused. Social systems theory provided a basic analytic framework to study the relationships between institutional and personal factors in viewing staff development needs and programs. Change theory provided the tool for understanding the different approaches schools use to improve. Staff development literature explained antecedent-consequent relationships and connections among the variables. It also provided a model for data organization and analysis. Each of these theories, selected findings of previous studies that utilized these theories, and the application of these theories to this research study are presented in this section.

Social Systems Theory

First and foremost, the school is a social system. Parsons (1951) developed the general theoretical framework for the study of social systems. Getzels, Lipham, and Campbell (1968) and other scholars in educational administration have applied social systems theory to the school setting. There are two basic dimensions to the social systems model, as shown in Figure 1.2: the normative or institutional dimension with its component conceptual elements

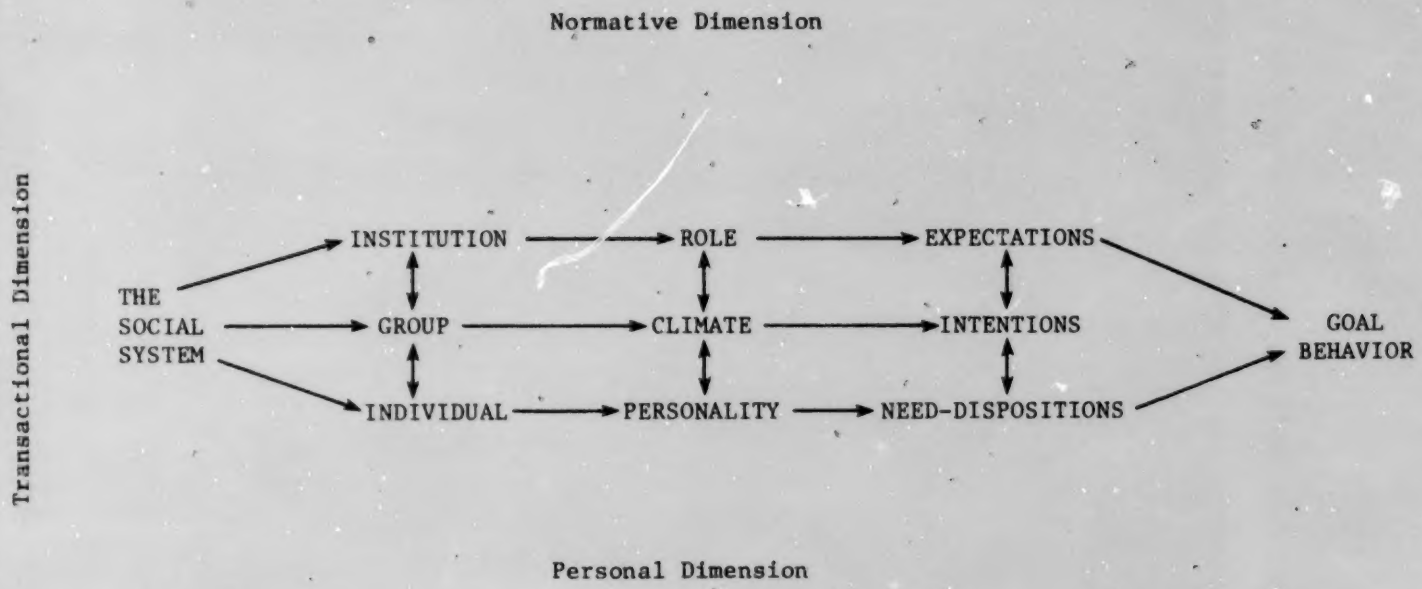

Figure 1.2. Three Dimensions of a Social System.

Based on: Sweitzer, R. An assessment of two theoretical frameworks. In F. D. Carver & T. J. Sergiovanni (Eds.), Organization and human behavior: Focus on schools. New York: McGraw-Hill, 1969, p. 13.

of institution, role, and expectations; and the idiographic or personal dimension with its elements of individual, personality, and need-dispositions. Thus, the social system is defined by its institutions, each institution by its constituent roles, and each role by the expectations attaching to it (Getzels, Lipham, & Campbell, 1968, p. 80). Similarly, in the personal dimension each term serves as the analytic unit for the term preceding it. These two basic dimensions of a social system interact in order to produce behavior in the social system. According to this theory, the objectives or goals of the school can only be attained through enhancing the role behavior of individuals within the institution. In this regard, Klausmeier (1977b, p. 1) stated, "Successful implementation of IGE depends upon the development of essential competencies and attitudes on the part of the staff." This research focused on staff development programs as one vehicle for enhancing role behavior. Staff development has personal and institutional dimensions, which are critical to effective functioning in a role (Bishop, 1976, p. 1).

The social systems model deals cogently with the relationship of the individual to the organization. To understand, predict, or modify role behavior in a specific social system, i.e., the school, it is important to know what kinds of individuals inhabit the roles and their modes of perceiving and reacting to the institution and its expectations (Lipham & Hoeh, p. 51). Staff

development attempts to foster professional growth and institutionally productive behavior of employees. As seen within the social system, staff development activities "blend" group, climate, and intentions with the nomothetic and idiographic dimensions. This transactional use of social systems theory provides an awareness of the limits and resources of both institution and individual when dealing with behavioral modification.

Change Theory

No matter how much discussion or enthusiasm there may be about an innovation, without the appropriate changes in the behavior of organizational members as they relate to the proposed innovation, organizational change does not take place (Giacquinta, 1973). Planning for educational change should utilize both structural and heuristic approaches. Use of the considerable body of knowledge about change can assist in this effort.

Miles (1967) stated that there is no unified, general theory of educational change but rather a bewildering assortment of models and perspectives. These models can provide the innovator with a variety of strategies for understanding change. A useful framework for examining the literature was presented by Havelock (1971). He grouped and summarized the main models of educational change into three categories--research-development-diffusion (R-D-D), social interaction, and problem solving. He formulated a fourth model

containing elements of the previous three which he labeled the linkage model.

R-D-D. The R-D-D model is a top-down strategy for change. Clark and Guba (1967), in their first formulation of the model, were guided by a number of assumptions. First, it was assumed that there should be a rational sequence in the evolution and application of an innovation. Second, massive, long-term planning is required. Third, there should be division and coordination of labor appropriate for planning. Fourth, the consumer is considered to be passive but rational and ready to accept the innovation if the timing is right. Finally, proponents accept the fact of a high initial cost prior to any dissemination. Paul (1977) presented the following synopsis of the model:

> Basic research is followed by applied research; these findings serve as a framework for the development of a new technique, product, or design for improving educational practice. The development is produced and then disseminated to a wide audience who receive assistance in installing it (p. 24).

Fullan (1972) described a number of problems with the R-D-D model including the assumption that innovations are developed centrally by experts and once tested are disseminated universally to all schools, passive role of the user, lack of appreciation for the complexities involved in learning how to use major innovations, the fact that often the decision to adopt is made by an authority figure so that the strategy usually turns out to be power-coercive from the point of view of the user.

Critical of the linear arrangement of the Guba-Clark model, Gideonse (1968) formulated the output-oriented model which is particularly appropriate in understanding the evolution of IGE/Secondary. According to Gideonse, this model has two purposes: to illustrate the difference between research and development and to illustrate how research and development are related to the operating educational system. The following description, outlined in Figure 1.3, was offered by Gideonse (1968, pp. 159-160):

> The model developed is based on the conviction that research, development, and school operations are different kinds of activities with quite different objectives or outputs. It indicates that initiatives for each kind of activity are the results of decisions based on quite different kinds of data and equally different kinds of internal and external needs. The lower plane symbolizes the knowledge orientation of research. For research, C represents an initiative undertaken which culminates in a research finding represented by Fc. The middle plane symbolizes the process orientation of development. B indicates an initiative undertaken for development culminating in the creation of a process which meets performance specifications PS_b. The top plane symbolizes the activities characteristic of school operations. A represents an initiative to install a process leading to the production of education output EO_a.

Social Interaction. The social interaction model of change pioneered by Ryan and Gross (1943), Rogers (1962), and Rogers and Shoemaker, (1971) afforded much attention to the characteristics of the innovation and innovator. According to Fullan (1972, p. 4), the social interaction orientation is more a study of the natural diffusion of innovations through a system rather than a strategy of planned change. Criticism with this approach has centered

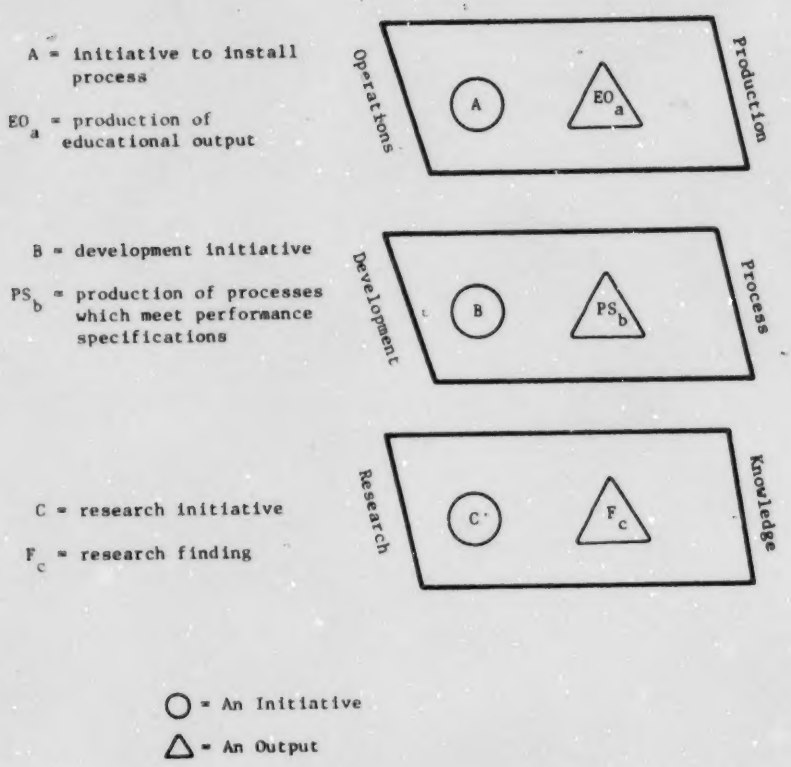

Figure 1.3. Output Model of Educational Research and Development.

Source: Gideonse, H. D. An output-oriented model of research and development and its relationship to educational improvement. In H. J. Klausmeier & G. O'Hearn (Eds.), Research and development toward the improvement of education. Madison, Wisconsin: Dembar Educational Research Services, 1968.

primarily around the lack of focus on the user, the emphasis on the early phases of change--awareness and adoption--rather than the implementation stage, which is believed to be a major stumbling block in education (Baldridge, 1974; Havelock, 1969; McLaughlin, 1976).

Problem Solving. The client is the primary concern of the problem-solving model of change (Lippitt, Watson, & Westly, 1958). Here, the process of change begins with the client who identifies a problem, searches for alternative solutions to the problem, and implements the selected solution on a trial basis before incorporating it. It is important to keep in mind, however, that there is probably much movement back and forth among the problem-solving stages (Thelen, 1967).

Hall (1974) developed The Concerns Based Adoption Model (CBAM) to describe the complex process involved when educational institutions adopt innovations. The model focused on the individual while viewing innovation adoption as a developmental process with stages that could be defined, predicted, and measured. Hall hypothesized that a relationship existed between the individual's concern about the innovation and how the innovation was used.

Two recent studies of change programs illustrate the user-centeredness of the problem-solving view of change. Kane (1976) found that recognition of educational needs, participation in identification of needs, acceptance of change program by staff, and congruence of a program with locally identified problems are

important at the early stages of a change effort. Findings from a large-scale study of federal programs supporting educational change conducted by the Rand Corporation (Berman et al., 1975; McLaughlin, 1976) pointed to the importance of centering change efforts on users of innovations rather than on developers or delivery systems.

The present study used the problem-solving approach by first assessing teachers' needs for staff development training and subsequently designing a delivery system based on the identified needs.

Linkage Model. The most recent change model in education today is the linkage model. The work of Bhola (1965) and Havelock (1969, 1973) emphasized the importance of the linking process. Paul (1977, p. 26-27) presented five features of the linkage model:

1) User Problem-Solving and Helping

   Focus on helping user groups develop capacity to solve problems and on identifying users to help in dissemination and implementation activities.

2) Need Sensing

   Focus on developing mechanisms for regularly determining user needs and for transforming needs into problem statements.

3) Client-Centered Solution Building

   Focus on doing research which is directly applicable to users and for exploring problems at the time they are critical for users.

4) Solution Processing Channels

   Focus on producing summaries of research, rewriting findings into language users understand, identifying important users for specific findings, and selecting appropriate channels to reach users.

5) Micro-System Building

> Focus on establishing structure so that users and researchers can work together on joint projects and exchange information.

The linkage model proved particularly useful in this investigation and all five features as described by Paul were included. Of particular interest was the identification of persons and agencies perceived by teachers to be key linking agents.

The four models of change reviewed represent different approaches to improving school practice. The Center utilized concepts from each of these four major theoretical models in its recommended IGE/Elementary implementation strategy. Originally conceived by Klausmeier (1971), educational innovation follows these timebound phases of change: (1) awareness, (2) commitment, (3) changeover, (4) refinement, and (5) renewal. Schools chosen for this study had completed the changeover phase.

Within the conceptual framework, this study viewed staff development programs as the major vehicle for implementing educational change. After studying the change process in secondary schools, Neiner (1978, p. 196) emphasized, "No effective change process can be undertaken without an intensive inservice program for the staff to expose them to the new concepts, to train them with the necessary skills to be able to implement the program, and to fulfill the new expectations that will be made of them."

Staff Development Literature

In the review of staff development literature, a definition of staff development will be presented. Additionally, studies verifying the importance of staff development as well as strategies and tactics for implementing inservice will be presented. Problems faced by school personnel in providing adequate staff development activities will be identified. Finally, the staff development model on which this study is based is included.

Definition. Staff development, or inservice training, when taken in a broad context is at best a difficult and complex area to define. As distinguished from preservice training, staff development in this study dealt with people who are currently on the job, i.e., inservice training. Harris (1963, p. 3) stated:

> A useful distinction is made in considering inservice education as a task aimed at changing people that they might improve the learning experience of students.

Acceptance of the premise by Harris infers that all teachers and administrators can benefit by staff development.

The following activities have been considered as viable methods for inservice education:

- Supervisory visits
- Seminars
- Institutes
- Workshops
- Conventions

- Faculty meetings
- Committee or team meetings
- University courses
- Local school district courses
- Extension courses
- Visits to other schools or centers
- Use of instructional media, resources, and materials
- Individually centered personal and professional growth plans

Importance of Inservice. Salomon et al. (n.d.), Crowther (1972), and Berman and Pauly (1975) found that teachers who were given inservice training prior to the introduction of an innovation were better able to implement that innovation. Additionally, Ashley and Butts (1970) found that a shift in teacher behavior consistent with the implementation of a curriculum change occurred when inservice training was provided. The importance of staff development training in the unlearning and relearning of teacher classroom roles was supported by Hamingson (1973).

Strategies and Tactics. In reviewing the literature on innovation, Fullan and Pomfret (1977, p. 371) found,

> There is some evidence that suggests that the following strategies and tactics are important for implementation: inservice training (depending on the type), resource support (time, materials, etc.), feedback mechanisms that stimulate interaction and problem identification, and participation in decision making (depending on the nature and timing).

Cole (1971) found that continuous interaction between teachers and consultants during the training period was critical to the success of an innovation. It is also crucial that teachers be involved in planning the inservice activity. Hestand (1973) found that the teacher's role in planning and deciding inservice activities aided in the implementation of complex innovations.

Teacher perceptions of a staff development program's relevance was also found to be important when implementing change (Rubin, 1978, p. 21). Continuing education programs on college campuses were found to be capable of affecting teacher attitudes and behavior toward innovation; however, on-site school settings proved to be more capable of influencing complex behavior changes in teachers (Lawrence, 1974).

Problems with Staff Development. Even though research studies support the importance of inservice education and suggest ways inservice can be improved, actually little is being done at the local school or district to remedy the problems. Much of the literature suggests that inservice is generally approached as being an unsuccessful venture because of poor timing, dull topics, devotion to administrative chores or staff perceptions of inservice as one of the necessary conditions of employment. One author suggested that the low level of accomplishment in school-based inservice programs is the result of the following two phenomena:

> The first charges schools with incompetence in the performance of the inservice responsibilities. The

> second is an increasingly widespread feeling among teachers that whatever they do or fail to do doesn't make much difference (Cogan, 1975, p. 220).

Most inservice programs can be classified into distinct categories and vary only slightly in length, activity, or procedure. Although inservice programs transcend local school boundaries in the form of graduate work, many teachers view this advanced preparation as nothing more than a means to increased salary or job advancement. The commitment to improved teaching is further damaged through poorly planned sessions at the local level. Cogan (1975, p. 220) concluded:

> Inservice programs . . . often have more form than content and too often represent a poor use of scarce resources and a waste of teachers' time and efforts.

Rubin (1978, p. 37) added:

> A majority of inservice training programs are either so prescriptive that they insult the teacher's intelligence or so vague they constitute an exercise in futility.

The problem is not that inservice is unimportant, but that practitioners apparently do not know how to make it meaningful.

Staff Development Model. Many variables should be considered by teachers and administrators when organizing and implementing a staff development program. While the importance of establishing a program's topic is clear and undeniable, such matters as the desired location, length, instructional mode, and rewards for participation are equally relevant concerns for inservice program

planners (Davis, 1978). This study used Davis' Model of Instruction System Design, depicted in Figure 1.4, which describes ten critical factors which should be relevant concerns for program planners. Each area is multifaceted and, according to Davis (1978, p. 5), comprises a number of significant dimensions described as follows:

> Learner Characteristics. This area contains all those characteristics of the learner, or group of learners, which have relevance to the instructional process. Included in these concerns would be the number of learners comprising the instructional group, their state of instructional readiness, their experiential background, and their preferred style of learning.
>
> Teacher/Trainer Characteristics. The focus is placed upon the characteristics of the trainer and his/her preferred teaching style, strengths, and weaknesses.
>
> Time Structure. Includes all variables of time including time of day, week, month, how long each session lasts, how frequently each session meets and the duration of each separate instructional activity taking place within a particular session.
>
> Physical Environment. In addition to the selection of the place at which instruction is to be offered, such concerns as the distance of the site from the learners, the physical dimensions of the meeting place, the seating arrangement, and temperature, are relevant to this area.
>
> Instructional Strategies and Materials. Pertains to the mode by which instruction is to be offered and the availability of supporting materials and equipment.

Davis continued,

> Consequent to this view of instruction, instructional design is conceived to be primarily a decision-making process in which choices are made among the various alternatives in each of the above-mentioned areas to reach a desired and preselected objective. In this

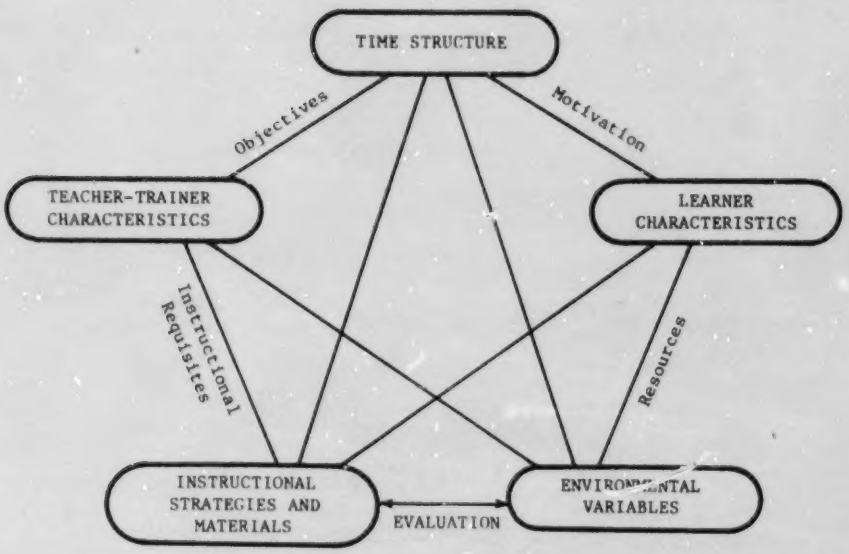

Figure 1.4. A Model of Instructional System Design.

Source: Davis, W. J. Designing inservice professional development for school principals: Preferred structures. In W. J. Davis, J. A. Culbertson, & P. F. Silver (Eds.), Staff development opportunities for Title I principals: Concepts, methods, and strategies. Washington, D. C.: U. S. Office of Education (in press).

regard, the five areas are quite obviously interdependent in the sense that the choice of a particular option in one area strongly affects the decision which must then be made in all other areas. Beyond these internal effects, five other factors are considered to be particularly crucial in their potential for constraining the design of an instructional system.

The other five factors include:

The Topic(s) and Objective(s) of Instruction. Undoubtedly the single most important factor affecting the design of an instructional system, inservice or otherwise, is the topic to be addressed and the desired learning outcome to be attained.

The Motivation of Intended Participants. Attention must be given to constructing the instructional system so that it (a) attracts intended participants, and (b) motivates participants to learn.

The Availability of Resources. Obviously, the range of feasible options is constrained by the material, financial, and human resources which can be expended upon the instructional system.

Instructional Requisites. Guided by the principles of educational psychology, research, craft wisdom, or intuition the instructional designer perceives certain combinations of the instructional components as more tenable than others. For example, most would agree--although it has not been "proven" in a strict sense--that it is not optimal to instruct 400 learners gathered in one place through the open discussion mode.

Evaluation. In this age of accountability and measurement, it is unthinkable to design a program which cannot be evaluated in terms of its effectiveness. It is probable that certain aspects of an instructional system will be selected on the basis of the evaluation methodology to be used.

In summary, a review of the staff development literature indicates that professional growth is necessary to implement a program of individualized schooling and that conceptual models

which consider topical and structural aspects of planning are needed from which staff development programs can be designed and implemented.

Significance of the Study

This study was designed to contribute to the staff development literature by extending the existing knowledge base and pointing the way to further in-depth studies of key variables. It was believed that this research has potential for directing future designs of staff development programs. To the practitioner this could mean more meaningful, relevant and well organized staff development activities. To the teacher training institute, staff development coordinator, principal, or director of instruction this study has the potential of providing a means for improving staff development programs.

It was hoped that the IGE/Secondary Project at the University of Wisconsin Research and Development Center for Individualized Schooling could be aided by this study through the development of models for staff development training to use with schools wishing to change to individualized schooling. To schools which participated in this study, the results of the questionnaires provided information which could be useful to them in planning and developing future staff development activities.

Overview of the Study

This chapter included an introduction to the study and the background of the study, including an explanation of the development of IGE/Secondary, a statement of the problem to be investigated, a description of the theories and related literature, and the significance of the study.

Chapter II presents the design and methodology of the study. Chapter III describes the presentation and analysis of the data. Chapter IV contains a summary of the study, conclusions, and implications for practice and further research.

CHAPTER II

DESIGN OF THE STUDY

The design of the study included consideration of the methodology; population and sample selection; instrumentation, including questionnaire and interview development; the pilot study; the data collection procedures; the data analysis process; and the limitations of the study.

Methodology

Survey research which focuses on people--their beliefs, opinions, attitudes, motivations, and behaviors--was utilized in this study. According to Babbie (1975, p. 259) surveys may be used for descriptive, exploratory, and explanatory purposes. This study was exploratory and descriptive in that the primary concern was to identify and describe teachers' and principals' perceptions of staff development programs, to discover the critical factors involved and the relationships between them, and to produce a model for staff improvement which considers the critical variables.

Questionnaires were utilized with both teachers and principals of the selected schools. Limitations of using mailed questionnaires are lack of response and amount of time involved. The researcher therefore employed a field study methodology and visited

each school, uniformly administered the questionnaires, and conducted the follow-up interviews.

Population and Sample

The population under consideration was faculties of middle and junior high schools implementing programs of individualized schooling. Twenty-seven such schools were identified in Profiles of Successful Innovating Secondary Schools: Associated Network of IGE Middle, Junior and Senior High Schools and Other Schools With Innovative Programs (Lehr & Teicher, 1978, p. 2). According to the authors:

> This publication is an attempt to profile and highlight several exemplary secondary schools in operation today. Since the fall of 1978 we have--along with fellow staff members at the Wisconsin Research and Development Center--directed a good deal of effort toward identifying schools with exemplary programs and practices.

The schools included in Profiles were associated with the R & D Center's IGE/Secondary Project and were implementing some of the IGE/Secondary Process Objectives (described in Chapter I). Based on their degree of implementation of IGE/Secondary, the researcher developed a telephone protocol to determine the school's implementation status, as well as the principal's receptivity toward participating in the research project (see Appendix A).

Each school was ranked according to its implementation of the IGE/Secondary process objectives. Factors which provided information for ranking included: materials supplied by the schools to

the IGE secondary project, input from staff members who had visited the schools, and the information provided by the school principals. One consideration in selecting the number of schools to be included in the study was to ensure a sample size large enough from which valid and reliable conclusions could be drawn. Eleven middle or junior high schools were chosen for the study, each of which had at least eight of the ten IGE/Secondary process objectives in place as well as being geographically dispersed and diverse in size and community settings.

An abstract of the proposed study, a letter of explanation (see Appendix B), and a copy of the survey instruments were sent to the principal of each school chosen. A telephone call followed to solicit final participation and set a date for the visit. All of the 11 principals said their staffs had chosen to participate in the research investigation. Table 2.1 provides basic background information on the pilot and ten sample schools. Included are the schools' locations by states, areas, numbers of students and grade levels.

Instrumentation

The data for this study were gathered through the use of questionnaires, interviews, and observations. Two instrument packages were developed--one for use with teachers and one for use with school principals.

TABLE 2.1

BACKGROUND INFORMATION ON THE SELECTED SCHOOLS

School	Pilot	A	B	C	D	E	F	G	H	I	J
Location (State)	Illinois	Wisconsin	New Jersey	South Carolina	Wisconsin	Wisconsin	Wisconsin	Colorado	Connecticut	Ohio	Ohio
Type of area	Suburban	Suburban	Suburban	Suburban	Urban	Rural	Rural	Suburban	Suburban	Urban	Rural
Number of students	400	708	537	2,600	920	435	725	940	529	425	803
Grade levels	7,8	6-8	5-8	6-9	6-8	7,8	6-8	7-9	7-9	7,8	7,8

Teacher's Instrument Package

The instrument package used with teachers consisted of two questionnaires (see Appendix C). The first instrument, the Experience-Interest Inventory, provided a form for assessing prospective participants' relative interests and levels of experience regarding a number of possible program topics. The second instrument, the Design for Staff Development Preference Inventory, asked respondents about several areas relevant to the motivational and design of the staff development program. The instruments were developed by University Council for Educational Administration personnel with support from the United States Office of Education. The joint effort was directed toward the establishment of guidelines and strategies for promoting the professional development of principals of urban and Title I schools. The items comprising the questionnaires were drawn from a review of the literature and an extensive series of interviews with educational leaders. A number of practitioners, staff development experts, and educational researchers assisted in this developmental effort; an impartial board of referees judged the final drafts of the instruments to have content validity (Davis, Culbertson, & Silver, in press). Davis (1978, p. 3) stated, "Although both instruments were originally constructed to support administrative staff development efforts, only cosmetic changes are required to render the instruments applicable to other client groups."

Modifications were made by the researcher to the instruments so that they would be appropriate for the target group of this study. These modifications included: changing the topics to make them appropriate for teachers engaged in individualized schooling; inserting "teacher" for "principal," and deleting inappropriate items. These changes were based on discussions with the researcher's dissertation committee (which included one of the authors of the original instrument), local classroom teachers, and district level staff development coordinators. Content validity, embedded in the questions, "Does this item measure what we think it measures?" was a major guiding principle (Kerlinger, 1964, p. 445).

The adapted Experience-Interest Inventory consisted of 22 topics for staff development activities which were identified by practitioners who had been involved extensively with individualized schooling. Topics such as shared decision making, team teaching, ways of grouping students, motivation techniques, and planning were addressed. For each topic participants were asked to indicate their level of interest in each topic by checking one of four Likert-type response categories--"Very Strong," "Strong," "Moderate," and "None." Additionally, respondents indicated their level of experience with respect to the activities reflected in each topical area. The second rating scale containing Likert-type response categories--"Expertise," "Some Experience," "Some Knowledge," and "No Knowledge"--served three functions. First, it

allowed the calculation of a measure of "need" (the arithmetic difference between the respondent's level of experience and interest). Second, it provided a better idea of the breadth and depth with which the topic should be introduced. Third, the experience scales identified persons who could serve as valuable resources in planning, organizing or conducting inservice (Davis, 1978, p. 10). Need, therefore, is a construct that is conceptualized with two dimensions. The first dimension consists of the individual's experience in the related topic. A low level of experience, however, does not necessarily indicate a high level of need. A small amount of experience becomes a need as one's interest in that area increases. Therefore, need is defined as the discrepancy between experience and interest. This produces a scale wherein the more negative the number the higher the need. Additional support for this methodology is derived from Vicino and Raymond of the Mesa, Arizona, Public School System (Davis, 1978, p. 10).

The revised Design for Staff Development Inventory was composed of 20 items either multiple choice or Likert-type in nature. The items primarily addressed issues relevant to the design or structure of an inservice program. The following were representative questions:

> What is the amount of time you would spend attending inservice?
>
> When should inservice be conducted?
>
> Who should plan and/or conduct inservice?

What are rewards for attending inservice?

Questions which ascertained background data on respondents, including teaching experience, level of academic attainment, and teaching responsibility also were included.

An interview schedule (Appendix D) consisting of six open-ended questions was developed by the researcher to guide the follow-up interview. Designed to probe as well as clarify information the respondent offered in the questionnaire, the interview format included such questions as: "You chose number _____ as the topic which could be most beneficial to someone wishing to improve instruction. Why?"

Principal's Instrument Package

The instrument package used with the IGE school principals also consisted to two instruments (see Appendix E). The first, the Staff Needs Inventory was developed by the researcher based on the Experience-Interest Inventory used with teachers. The instrument asked principals to respond to the identical topics the teachers did, but from the perspective of "What do you perceive to be inservice professional development needs of teachers on your staff?" Principals responded on a Likert-type scale including "Very Strongly," "Strong," "Moderate," or "None."

The second instrument, Implementing Staff Development Programs, attempted to get principals to identify those factors, if any, which hindered the successful implementation of staff

development programs. This instrument was developed by Davis and Podemski (in press) and sponsored by the University Council for Educational Administration as a part of the Staff Development Models Project. Several items on the questionnaire asked respondents to rank choices or respond to Likert-type scales. Open-ended questions were also included and participants were asked to pay particular attention to those questions. The questionnaire could be viewed as asking one question: What factors impede your ability to provide effective inservice programs to the teachers in your school? Minor changes were made in the instrument based on discussions with the researcher's dissertation committee, local principals, and district staff development coordinators. The Background Information Form (Appendix F) was also completed by the principal.

Validity and Reliability

The instruments in this study were drawn from the work of Davis and Podemski (in press). The items for both the teacher and principal packages appeared in their earlier work. Further analysis and confirmation of the content validity of the items was established via an intensive three-day workshop in the pilot study school. Each of the items was reviewed by 16 members of the staff who responded by verifying the substantive content of each item. Because of the survey nature of the instruments and the independence of each survey item, further analysis of reliability was not undertaken.

Data Collection Procedures

The researcher visited each of the schools selected for one or two days. During this time the researcher met with the faculty as a total group, either before or after school, to administer the questionnaires. A brief explanation was given of the purposes of the study and why the school was chosen to participate. Directions for completing the questionnaires were explained and the researcher was available to answer any questions on an individual basis. Most teachers completed the questionnaires within 30 minutes. Uniform administration of the questionnaires was followed at each school. This precluded the existence of response bias due to differing conditions of test administration. An "Informed Consent Form" (see Appendix G) required by the federal government was read and signed by each respondent and separated from the questionnaire.

Interviews to obtain different perspectives on the staff development program were conducted at each school with three teachers--one who had been at the school for a long period of time, one new to the school, and one near the median of teaching experience in the school. These teachers were identified by the researcher from a list of the staff members and years of teaching experience supplied by the school. After the researcher compiled the list of possible interviewees, final selection was based on time schedules coinciding as well as willingness of the teacher to participate in the interview. The open-ended interviews allowed the interviewer

to probe for more information, seek further verification of what had been previously stated, and clarify the intended meanings of certain questions.

The principal completed the questionnaire at his/her convenience and returned it to the researcher at the end of the school day. An interview was also conducted with the principal to gather more information about the school (see Appendix F, Background Information Sheet).

The Pilot Study

A pilot test was conducted with an IGE junior high staff that had been involved extensively for the past eight years in a variety of staff development activities. The emphasis in the pilot test was well described by Katz (1953, p. 83) when he cited three purposes for a pilot test:

> 1) to develop the procedures for applying the research instrument so that, for example, the scale or schedule can be used effectively with respect to the time it takes to administer; 2) to test the wording of questions so that they are suited to the understanding of the audience; and 3) to ensure, as far as is practical, that the specific questions or observations are really getting at a variable for which a measure is needed.

The following revisions were made to the instrument.

1. The format of the answer sheet was revised to allow participants to distinguish more easily each question.
2. The word <u>need</u> was deleted from interest need category because many teachers felt it was confusing.

3. Topics were shortened.
4. One entire question which asked participants how many days their district gave them to devote to inservice was deleted because such information could readily be supplied by the principals.
5. The question, "What is your area of major teacher responsibility?" was added.
6. Several questions were rewritten for clarity.
7. Instructions, as well as definitions of categories, were added.

Data Analysis

Data were prepared for computer entry via the data input format found in Appendix H. Responses to all variables were of a categorical nature except for two continuous variables, total years of teaching experience and years as teacher at school of current employ.

Raw data were analyzed using various SPSS statistical packages on the Univac 1110 at the Madison Academic Computing Center (University of Wisconsin-Madison). The programs utilized provided:

a) Absolute frequency, relative frequency, adjusted frequency, and cumulative frequency for each response per question.

b) Frequency distributions of all respondents within topic for both the levels of interest and experience. (For this purpose the response categories were assigned weights of 1 to 4 corresponding to low interest/experience to high interest/experience.)

c) Frequency distributions and means of "need" for each topic. "Need" was computed by subtracting the respondent's level of interest from his/her level of experience.

d) Rank of topics in accordance with the average need score displayed.

e) Frequency distributions of topics selected as being of greatest and of least interest.

f) Descriptive statistics of demographic data of respondents.

g) Analysis of variance was employed to examine the sources of variances associated with the derived measure of topical need.

Interview data were utilized to interpret and clarify the questionnaire data.

Limitations of the Study

The study was limited to middle and junior high schools that had been identified as schools seeking to implement programs of individualized schooling. Therefore the results from the study could not be generalized beyond that population.

The study dealt with perceptions reflected on various scales. Two people in comparing perceptions may in fact have identical perceptions but assign them different values on the same scale even if the scales are carefully defined. This is a weakness of any study concerning perceptions which are numerically codified. Additionally, the preferences of respondents were entirely dependent in some questions on the options presented--a fact which should be kept in mind when the results are reviewed.

Finally, the study may have been limited by interviewer bias. That is, the interviewer and the respondents may not have had identical perceptions of the meaning of the interviewer's questions and the respondents' answers.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

This chapter includes five sections. Section one presents demographic profiles of the teachers who participated in the study. Section two presents the data obtained from both questionnaires and interviews with teachers and principals relating to topical needs for staff development activities. Section three presents the data obtained from teachers relevant to preferred strategies of an inservice program. Section four deals with functional and dysfunctional aspects of providing effective staff development programs, and the final section presents a model inservice program which is based on a synthesis of the mean responses of the 404 teachers who participated in the study.

Demographic Profile of Respondents

The population of this study included middle and junior high school teachers and principals from schools associated with the Research and Development Center's IGE/Secondary Project. From this population, a sample of ten school staffs was chosen for this investigation. Of the 451 teachers in the total sample, 404 participated, giving a response rate of 90 percent. The 47 teachers who did not participate were absent from school on the day the researcher administered the instruments or because of time constraints chose not to

participate in the study. Table 3.1 presents a demographic description of the teacher respondents. The principals of the ten schools also participated in the study.

Topical Needs for Staff Development Activities

A major purpose of this study was to identify staff development topical needs of teachers engaged in individualizing schooling. This section poses the questions related to staff development needs and presents findings dealing with topical areas of staff development programs.

Research Question 1 was stated as follows:

> To what extent are teachers interested in given topics for staff development activities designed to facilitate individualized schooling?

As shown in Table 3.2, teachers responded to 22 topical areas on a Likert-type scale from "no interest" to "very strong interest." Each category is presented for each topic. Means are computed and then rank ordered to illustrate the hierarchy of interest.

Over half of the respondents, 53 percent, indicated a very strong interest in a workshop on "techniques for motivating students." As can be seen in Table 3.2, over 75 percent of teachers had at least a moderate interest in all 22 topics. Topics of interest with highest mean ratings included: (Topics are abbreviated. See Appendix I for complete titles.) "motivation," "grouping," "continuous progress," "student development," "reporting student

TABLE 3.1

DEMOGRAPHIC PROFILE OF RESPONDENTS

	Frequency	Percent
Total Years of Teaching Experience		
0-5	219	54.2
6-10	106	26.2
11-15	46	11.4
16-20	20	5.0
21-25	12	3.0
26-30	1	.2
31 and over		
Area of Major Teaching Responsibility		
Academic	258	63.9
Allied Arts	66	16.3
Physical Education	20	5.0
Special Education	28	6.9
Level of Academic Attainment		
Bachelor's degree	211	53.1
Master's degree	178	44.8
Doctoral degree	7	2.0
Involvement in Team Teaching		
Yes	239	60.1
No	159	39.9
Adaptation of Instruction to meet Individual Student Needs		
No adaptation	4	1.0
Some adaptation	122	31.0
Adequate adaptation	201	51.0
Optimal adaptation	67	17.0

N = 404

TABLE 3.2

TEACHERS' INTEREST LEVELS FOR INSERVICE TOPICS

Topics*	Interest Levels				Mean	Rank
	None	Moderate	Strong	Very Strong		
Motivation	.8	11.9	34.3	53.0	3.39	1
Grouping	2.8	19.8	38.4	38.9	3.13	2
Continuous Progress	2.5	18.0	45.7	33.8	3.10	3
Student Development	2.8	28.0	33.8	35.4	3.01	4
Reporting Student Progress	4.3	25.8	40.2	29.7	2.95	5
Assessing minimum competency	4.3	27.9	37.6	30.2	2.93	6
Team Teaching	5.8	27.2	36.3	30.7	2.91	7
Evaluation	3.6	30.0	39.9	26.5	2.89	8
Learning Materials(LAPS)	7.4	28.2	32.7	31.7	2.88	9
Record Keeping	6.4	29.9	40.7	23.0	2.80	10
Planning of a Team	4.6	36.0	35.2	24.2	2.79	11
Terminal Objectives	6.4	33.1	36.4	24.1	2.78	12
Student Learning in Community	5.9	36.1	38.1	19.9	2.72	13
Administrative Arrangements	6.1	39.6	34.0	20.3	2.68	14
Community Resources	6.4	38.6	37.9	17.1	2.65	15
Volunteer Aides	10.1	37.3	30.3	22.3	2.64	16
Writing Objectives	9.4	36.4	34.4	19.8	2.64	17
Career Awareness	9.4	40.2	32.8	17.6	2.58	18
Advising	12.8	39.3	28.8	19.1	2.54	19
Advisement Materials	11.9	40.7	30.9	16.5	2.52	20
Open Space	12.0	42.2	30.2	15.6	2.49	21
Computer Uses	22.4	36.0	25.0	16.6	2.35	22

*Topics are abbreviated. See Appendix I for complete titles.

N = 404

progress," "assessing minimum competency," and "team teaching." The topics with lowest mean ratings were: "computer uses," "open space," "advisement materials," "advising," "career awareness," "writing objectives," "volunteer aides," and "community resources."

Research Question 2 asked:

> What are the perceived experiences of individual teachers in terms of topical areas in prior staff development activities?

As well as teachers' interests in given topics, their inservice experiences in these topics are critical. Table 3.3 presents teacher responses to the identical 22 topics using a Likert-type scale from "no knowledge" to "expertise." Regarding the "no knowledge" category, the workshop topic, "uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives," was selected by 62.5 percent of teachers. This finding may be considered significant, since within the category, "no knowledge," the second most frequently chosen topic, "advisement materials," was selected by only 23 percent of teachers.

The means for each topic are computed and rank ordered. Teachers were most experienced in the following topical areas: (Topics are abbreviated. See Appendix I for complete titles.) "reporting student progress," "terminal objectives," "writing objectives," "motivation," "continuous progress," "evaluation," "grouping," and "record keeping." Teachers were least experienced in the

TABLE 3.3

TEACHERS' EXPERIENCE LEVELS FOR INSERVICE TOPICS

Topic*	Experience Levels: No Knowledge	Some Knowledge	Some Experience	Expertise	Mean	Rank
Reporting Student Progress	2.5	23.7	57.2	16.5	2.87	1
Terminal Objectives	3.2	28.6	45.5	22.6	2.87	2
Writing Objectives	4.0	26.1	49.0	20.9	2.86	3
Motivation	1.0	26.6	58.3	14.1	2.84	4
Continuous Progress	2.2	28.5	54.3	14.9	2.81	5
Evaluation	3.2	27.5	54.1	15.1	2.81	6
Grouping	1.5	33.7	51.0	13.9	2.77	7
Record Keeping	5.2	31.2	46.9	16.7	2.75	8
Team Teaching	5.7	32.9	46.0	15.3	2.71	9
Planning of a Team	5.0	35.7	45.7	13.6	2.68	10
Learning Materials(LAPS)	7.9	32.8	43.4	15.9	2.67	11
Assessing Minimum Competency	9.0	38.2	42.7	10.0	2.53	12
Student Development	5.5	42.4	39.7	12.4	2.49	13
Administrative Arrangement	11.4	45.4	35.7	7.4	2.39	14
Career Awareness	10.4	50.2	30.0	9.4	2.38	15
Open Space	15.4	42.4	35.5	6.7	2.33	16
Community Resources	10.5	51.0	33.5	5.0	2.33	17
Advising	17.2	45.2	30.7	6.7	2.27	18
Volunteer Aides	16.0	48.0	30.5	5.6	2.25	19
Student Learning in Community	12.0	57.9	26.7	3.5	2.21	20
Advisement Materials	23.0	46.2	25.0	5.8	2.13	21
Computer Uses	62.5	28.0	6.7	2.7	1.49	22

*Topics are abbreviated. See Appendix I for complete titles.

N = 404

following areas: "computer uses," "advisement materials," "student learning in community," "volunteer aides," "advising," and "community resources."

Research Questions 3 and 4 were stated as follows:

> What topical areas for staff development activities do teachers perceive need to be addressed based on their experiences and needs?
>
> What topical areas for staff development activities do principals feel most teachers in their schools need to implement individualized schooling more effectively?

Need as referred to in Question 3 was derived from subtracting teachers' mean interest responses from mean experience responses for each topic. A resulting negative number indicated a level of need. In Table 3.4 each of the 22 topics is listed, followed by a percentage of teachers in which a need for a workshop on that topic may be inferred. Based on their experiences and interests one may infer that over half, 56 percent, of the respondents need a workshop on "uses of the computer to assist you and other teachers in managing instruction." Other topics ranked in order of need were: (Topics are abbreviated. See Appendix I for complete titles.) "motivation," "student learning in community," "grouping," "student development," "assessing minimum competency," and "advisement materials." One may infer the least need for teachers was in the following topical areas: "writing objectives," "terminal objectives," "record keeping," "evaluation," and "planning of a team."

School principals were asked in their questionnaire to respond to the direct question, "What do you perceive to be the

TABLE 3.4

TEACHERS' AND PRINCIPALS' NEED RESPONSES FOR INSERVICE TOPICS

Topic*	Teachers' NEEDS (Experience-Interest)		Principals' STAFF NEEDS for teachers	
	Percent	Rank	Rank	Mean
Computer Uses	56.4	1	11	2.5
Motivation	51.7	2	1	2.9
Student Learning in Community	45.5	3	19	2.2
Grouping	42.3	4	10	2.5
Student Development	41.3	5	2	2.8
Assessing Minimum Competency	41.0	6	6	2.7
Advisement Materials	40.8	7	3	2.8
Community Resources	40.1	8	12	2.4
Continuous Progress	39.4	9	4	2.7
Volunteer Aides	37.9	10	20	2.0
Learning Materials (LAPS)	36.9	11	5	2.7
Team Teaching	36.6	12	9	2.6
Administrative Arrangements	36.1	13	22	1.9
Advising	35.9	14	14	2.4
Open Space	31.7	15	17	2.2
Career Awareness	31.2	16	8	2.6
Reporting Student Progress	31.2	17	21	1.9
Planning of a Team	29.5	18	13	2.4
Evaluation	29.0	19	13	2.4
Record Keeping	26.7	20	7	2.6
Terminal Objectives	25.7	21	16	2.2
Writing Objectives	21.3	22	18	2.2
	N = 404		N = 10	

*Topics are abbreviated. See Appendix I for complete titles.

inservice professional development needs of teachers of your staff?" Table 3.4 also depicts the means of the identical 22 topics rank ordered by principals' need perceptions. The top three inservice topical needs for teachers, according to principals, included: "techniques for motivating students"; "practices and programs in dealing with students' personal, social, emotional, and moral development"; and "materials for use with students in the advisement program." Viewed as least important by principals for the teachers were workshops on the topics "administrative arrangements," and "reporting student progress."

So as not to limit responses to only the 22 topics presented, teachers and principals were asked to list other topics of need for inservice. Topics listed by teachers included: interpersonal communication within teams, size and composition of teams, staff communication, student goal setting, how to integrate the allied arts with the academic teams, uses of minicourses, interpreting test results, gifted programs, developing learning labs, how do you have time to individualize?, values clarification, teaching exceptional children in the regular classroom, use of audiovisual equipment, "open" lines of communication with administrators, integrating the curriculum, effective use of aides, teaching and evaluating writing, role of team leader, field trip planning, selecting useful classroom materials, and classroom management.

Principals' suggestions were: ways for all students to meet success in academic areas, improving school atmosphere, improving instruction for slow learners, reading in content areas, humanistic awareness, and renewal for IGE.

Research Question 5 was phrased as follows:

> What topical areas for staff development activities do teachers perceive as being most essential for improving schooling?

From the list of identical 22 topics, teachers were asked to indicate on the survey the one topic which they would recommend to someone else as being most beneficial to them in their efforts to improve instruction. Almost three-fourths of all respondents chose "techniques for motivating students" as the most essential topic (Table 3.5). Teachers were asked in individual interviews why they chose "techniques for motivating students" as the most essential inservice topic. Some teachers interviewed expressed their interest this way:

> My first responsibility as a teacher is to motivate my students to want to learn. Otherwise, teaching is useless.
>
> The most important teaching strategy is to "turn kids on" to learning.
>
> In our highly technological society it is becoming increasingly difficult to keep students motivated.

The second choice was "ways of organizing your curricular area and instructional sequences to maintain or secure continuous progress for each student." According to one teacher,

TABLE 3.5

TEACHERS' PERCEPTIONS OF MOST BENEFICIAL TOPIC

FOR IMPROVING INSTRUCTION

Topic*	Frequency	Percent	Rank
Motivation	73	21.8	1
Continuous Progress	65	19.4	2
Grouping	31	9.3	3
Student Development	28	8.4	4
Assessing Minimum Competency	22	6.0	5
Learning Materials (LAPS)	19	5.7	6
Team Teaching	16	4.8	7
Planning of a Team	13	3.9	8
Administrative Arrangements	9	2.7	9
Computer Uses	8	2.4	10
Student Learning in Community	7	2.1	11
Record Keeping	7	2.1	12
Career Awareness	7	2.1	13
Writing Objectives	7	2.1	14
Advising	6	1.8	15
Evaluation	5	1.5	16
Terminal Objectives	4	1.2	17
Open Space	3	.9	18
Community Resources	3	.9	19
Volunteer Aides	1	.3	20
Advisement Materials	1	.3	21
Reporting Student Progress	0	0.0	22

N = 335

*Topics are abbreviated. See Appendix I for complete titles.

> That's what it is all about. Take a student where he/she is and go with them as far as they can go.

Research Question 6 explored the following areas:

> What is the relationship of total years of teaching experience, level of academic attainment, and area of major teaching responsibility to teachers' perceived topical needs for staff development activities?

In order to understand the relationship of background variables to staff development needs, analysis of variance was the statistical procedure utilized. This procedure was utilized to determine the effects of total years of teaching experience, academic attainment, and area of teaching responsibility to topical needs. Each of the 22 topical areas for staff development activities was considered in a one-way analysis of variance design. Table 3.6 is a summary of 22 analyses of variance procedures designed to examine Research Question 6. This composite format for presentation was employed because it succinctly presents a large number of findings in a single table. Further details of the analysis of variance procedure may be found in Appendix J. In the column labeled "Main Effects" the significance of the differences between each category is presented for each topic. The asterisk indicates that the "Group Means" as measured by need were significantly different at the .05 level or greater for each categorical effect (ACAD vs YEAR vs RESP). The topics, "terminal objectives," "planning of a team," "advising," "advisement materials," "learning materials," "computer uses," and "student learning in the community" were perceived as

TABLE 3.6

SIGNIFICANCE OF GROUP-MEAN DIFFERENCES OF CALCULATED NEEDS AS CLUSTERED BY:
(1) ACADEMIC: LEVEL OF ACADEMIC ATTAINMENT
(2) YEAR: YEARS OF TEACHING EXPERIENCE
(3) RESP: FOCUS OF INSTRUCTIONAL RESPONSIBILITY

Topics	Main Effects (df=11)	Acad. (df=2)	Year. (df=5)	Resp. (df=4)
Terminal Objectives	*.000	*.002	.123	*.008
Administrative Arrangements	.471	.846	.216	.451
Team Teaching	.139	.417	.269	.152
Planning of a Team	*.047	.109	.090	.505
Grouping	.562	.309	.463	.702
Open Space	.727	.584	.620	.533
Writing Objectives	.545	.374	.538	.604
Continuous Progress	.186	.084	.500	.275
Advising	*.006	*.006	.056	.613
Advisement Materials	*.005	*.039	*.004	.841
Student Development	.324	*.017	.827	.805
Motivation	.136	*.006	.800	.306
Career Awareness	.407	*.040	.734	.824
Learning Materials (LAPS)	*.011	.117	*.018	.350
Evaluation	.529	.151	.607	.732
Assessing Minimum Competency	.584	*.047	.954	.604
Record Keeping	.850	.238	.903	.866
Computer Uses	*.027	*.033	.420	*.026
Community Resources	.247	.274	.482	.355
Student Learning in Community	*.003	*.016	*.008	.792
Reporting Student Progress	.531	.293	.645	.545
Volunteer Aides	.109	*.009	.521	.907

*$p \leq .05$ N = 404

Note: See Appendix J for details of Analysis of Variance procedure.

being needed significantly differently depending on one's educational background, experience, or area of teaching.

Teachers responded to level of academic attainment by indicating whether they had a B.S., M.S., or Ph.D. degree. Under the category labeled "Academic," group means as measured by need were compared for the three subsets and are presented by topic. Group means were significantly different at the .05 level or greater for ten topics (see Table 3.6). These included: terminal objectives, advising, advisement materials, student development, motivation, career awareness, assessing minimum competency, computer uses, student learning in community, and volunteer aides.

The same procedure was followed in analyzing the categories "Year" and "Responsibility." "Advisement materials," "learning materials," and "student learning in the community" were the topics which were significantly different at the .05 level or greater when examining years of teaching experience. The topics "terminal objectives" and "computer uses" were significant within the category of area of teaching.

The significant difference in responses on "computer uses" within the category of teaching responsibility indicates that there is probably a level of concern for the teaching about computers, but that it is an intensive concern. Teachers of mathematics and science were probably most highly concerned, while teachers in other areas did not perceive a high level of urgency about instruction concerning computers.

As depicted by Table 3.6, there were significant effects between total years of teaching experience, level of academic attainment, and area of major teaching responsibilities to teachers' perceived topical needs for staff development activities.

Staff Development Strategies

While the importance of establishing inservice needs for training is critical, the second major purpose of this study was to identify the staff development strategies preferred by teachers engaged in individualizing schooling. The research questions addressed issues relevant to the structure of an inservice program including:

1. The environment: location of the program
2. Time structure: date, length, and frequency
3. Learning strategies: preferred mode of learning
4. Program size
5. Characteristics of the planner and trainer

Research Question 7 asked:

> What are teachers' perceptions regarding all modifiable aspects of the design of a staff development activity including: time structure--date, length and frequency; learning strategies; program size; and characteristics of the teacher/trainer?

This question explored the important aspects of the design or structure of an inservice program. Table 3.7 shows that a significantly high percentage, 73.1, of teachers preferred inservice

during the working day. One teacher interviewed explained the problem succinctly,

> It's unfair to ask me to use weekends for inservice and I'm too tired after a full day at school. Inservice days should be built into the school calendar as full days.

In responding to the question, "During which three months should inservice be scheduled?" teachers revealed differing opinions, as evident by Table 3.8. March, October, and February were chosen in that order.

Tables 3.9, 3.10, and 3.11 describe teachers' preferences for the length or frequency of inservice. Sixty-eight percent of the teachers preferred an intensive inservice, i.e., one gathering of participants for one or more days, while 32 percent liked inservice to be continuing, i.e., a series of gatherings on a daily, weekly, or monthly basis. If the inservice were continuing (Table 3.10), almost half, 46.4 percent, of the teachers preferred that it meet weekly. If the inservice were intensive (Table 3.11), 43.9 percent thought it should last for two days, while 36.4 percent preferred a three- to five-day inservice activity.

To ascertain the preferred learning modes of teachers, fifteen learning strategies were presented and teachers reacted on a Likert-type scale of "dislike," "indifferent," "mildly prefer," and "strongly prefer." Additionally, teachers were asked to list any additional strategies they preferred. Table 3.12 includes the frequency of teachers' responses as well as the means and rank order

TABLE 3.7

PREFERRED FORMAT FOR STAFF DEVELOPMENT PROGRAMS

When Should Inservice be Scheduled	Frequency	Percent	Rank
During "working day"	280	73.1	1
During the summer	51	13.3	2
After working hours	39	10.2	3
Before working hours	8	2.1	4
Weekends	5	1.3	5

N = 383

TABLE 3.8

MONTH TO SCHEDULE INSERVICE

Month	Frequency	Rank
March	130	1
October	129	2
February	123	3
January	110	4
August	105	5
June	100	6
September	94	7
April	80	8
July	75	9
November	74	10
May	53	11
December	28	12

Number of Respondents = 390

Number of Responses = 1101

TABLE 3.9

TYPE OF INSERVICE PREFERRED

Type	Frequency	Percent
Intensive (one gathering of participants for 1 or more days)	268	68.0
Continuing (a series of gatherings on day, weekly or monthly basis)	126	32.0

N = 394

TABLE 3.10

PREFERRED MEETING SCHEDULE FOR CONTINUING INSERVICE

Schedule	Frequency	Percent	Rank
Weekly	183	46.4	1
Consecutive Days or Nights	109	27.7	2
Monthly	61	15.5	3
Bi-Weekly	41	10.4	4

N = 394

TABLE 3.11

PREFERRED MEETING SCHEDULE FOR INTENSIVE INSERVICE

Schedule	Frequency	Percent	Rank
2 days	174	43.9	1
3 to 5 days	144	36.4	2
1 day	49	12.4	3
Could not attend at all	13	3.3	4
6 to 10 days	9	2.3	5
More than 10 days	7	1.8	6

N = 396

TABLE 3.12

TEACHERS' LEARNING ACTIVITY PREFERENCE

ode	Dislike	Indifferent	Mildly Prefer	Strongly Prefer	Mean	Rank
te Visit	2.8	14.7	37.6	43.9	3.25	1
scussion Groups	7.3	11.3	41.6	39.3	3.14	2
ternship	10.4	28.4	37.5	20.3	2.78	3
lms	8.3	26.5	48.7	15.9	2.73	4
se Study	8.8	29.8	42.9	17.2	2.72	5
mulation	15.8	26.0	35.9	19.3	2.67	6
cture	16.6	24.9	37.3	20.2	2.64	7
dependent Study	22.0	28.1	33.2	13.7	2.47	8
mputer Asst. Inst.	22.3	39.6	23.3	5.1	2.40	9
ming	28.0	29.7	23.2	14.9	2.37	10
D. Process	17.4	47.9	25.0	7.1	2.29	11
le Playing	35.1	23.2	26.2	11.7	2.26	12
le-Lecture	29.3	34.9	25.7	5.3	2.21	13
ogrammed Learning	25.1	42.8	23.0	4.8	2.20	14
pervised Reading	32.6	38.2	19.0	3.3	2.13	15
her (19 responses)						

= 404

of preferences. Only 19 people listed other preferred modes. Site visits, discussion groups, and internship experiences were the most frequently chosen. To "zero in" on teachers' most preferred as well as least preferred mode of instruction, the question, "Of the modes listed what is your most and least preferred?" was asked. Table 3.13 illustrates their responses. Discussion group, site visit, lecture, and internship were most preferred; and role playing, telelecture, supervised readings, and gaming were least preferred.

Since the discussion group mode was found to be the most preferred learning strategy, participants were asked their preferred size of a discussion group. Table 3.14 shows that 42.6 percent of the respondents preferred a discussion group size of six to ten people.

In ascertaining teachers' preferences for the characteristics of the trainer or organizer, two questions were asked: "Who should have primary responsibility for planning and organizing inservice?" and "Who do teachers prefer conduct inservice?" Table 3.15 contains teachers' reactions to eight possible groups who could feasibly plan and organize inservice. Frequency of response, percent and rank order are given. Of the 375 teachers who responded to this question, 66.1 percent felt teachers should plan and organize their own inservice. Half the teachers who responded felt a combination of groups should be involved in conducting the inservice (Table 3.16). In a personal interview one teacher expressed:

TABLE 3.13

MOST AND LEAST PREFERRED MODES

Mode	Most Preferred			Least Preferred		
	Frequency	Percent	Rank	Frequency	Percent	Rank
Discussion Groups	123	33.0	1	8	2.2	9
Site Visit	58	15.5	2	2	.5	15
Lecture	60	16.1	3	41	11.0	5
Internship	30	8.0	4	8	2.2	9
Case Study	19	5.1	5	3	.8	13
Simulation	19	5.1	5	6	1.6	11
Films	17	4.6	6	6	1.6	11
Independent Study	11	2.9	7	19	5.1	8
Gaming	11	2.9	7	43	11.6	4
Programmed Learning	7	1.9	9	34	9.1	6
Tele-Lecture	5	1.3	10	45	12.1	2
Computer Assisted Instruction	3	.8	11	34	9.1	6
O. D. Process	3	.8	11	3	.8	13
Role Playing	2	.5	13	75	20.2	1
Supervised Reading	1	.3	14	45	12.1	3
Other	(31 responses)			(32 responses)		

N = 404

TABLE 3.14

PREFERRED SIZE OF A DISCUSSION GROUP

Size	Frequency	Percent	Rank
6 to 10 people	168	42.6	1
11 to 15 people	107	27.2	2
5 or fewer people	51	12.9	3
16 to 20 people	47	11.9	4
21 to 30 people	15	3.8	5
More than 30	6	1.5	6

N = 394

TABLE 3.15

WHO DO TEACHERS FEEL SHOULD PLAN AND ORGANIZE INSERVICE?

Group	Frequency	Percent	Rank
Local teachers	248	66.1	1
Central Office staff	34	9.1	2
School principals	24	6.4	3
Professional educ. organizations	20	5.3	4
Colleges/universities	17	4.5	5
Regional edu. agencies	14	3.7	6
University-related agencies	11	2.9	7
State educational agencies	7	1.9	8

N = 375

TABLE 3.16

WHO DO TEACHERS FEEL SHOULD CONDUCT INSERVICE?

Group	Frequency	Percent	Rank
Combination of above	190	50.4	1
Local teachers	78	20.7	2
Professional ed. org. staff	42	11.1	3
College, university professors	30	8.0	4
University related agencies	15	4.0	5
State educ. agency personnel	8	2.1	6
School principals	5	1.3	7
Central Office staff	5	1.3	7
Regional educ. agency personnel	4	1.1	9

N = 377

> We should be in from the beginning in planning and organizing our inservice. The consultant who conducts the inservice should be someone who has been there. Inservice presenters must really know what is going on in the classroom.

Research Question 8 asked:

> Who do principals feel should plan and organize inservice professional development programs for teachers?
>
> Who do principals feel should conduct inservice professional development programs for teachers?

Most principals felt a combination of local teachers, school principals, and central office staff should plan and organize teachers' inservice (Table 3.17). Joining these three groups in conducting inservice (Table 3.18) would be college and university professors, personnel from university related agencies, and professional education organization staff.

Functional and Dysfunctional Aspects of Providing Staff Development Programs

In order to provide a more complete base upon which to posit a plan of action for improved inservice, the third major purpose of this study was to analyze what teachers and principals perceived as functional aspects, as well as dysfunctional aspects or impediments to staff development programs. The research questions addressed issues such as:

1. Motivation: the climate of receptivity for inservice programs in general.

TABLE 3.17

WHO SHOULD PLAN AND ORGANIZE TEACHERS' INSERVICE?

Group	Frequency	Percent	Rank
Local Teachers	9	29	1
School Principals	9	29	1
Central Office Staff	8	26	3
Professional Edu. Organizations	3	10	4
Colleges/Universities	1	3	5
University Related Agencies	1	3	5
State Education Agencies	0	0	7
Regional Education Agencies	0	0	7

Number of respondents = 10

Number of total responses = 31

TABLE 3.18

WHO SHOULD CONDUCT TEACHERS' INSERVICE?

Group	Frequency	Percent	Rank
Local Teachers	9	17	1
School Principals	8	15	2
College/University Professors	8	15	2
Central Office Staff	7	13	4
University Related Agencies	7	13	4
Professional Education Organization Staff	6	11	6
State Education Personnel	4	8	7
Regional Education Personnel	4	8	7

Number of respondents = 10

Number of total responses = 53

2. Factors hindering participation in prior programs.

3. Factors promoting participation in the program: rewards.

Research Question 9 asked:

> How much time would teachers be willing to devote to staff development activities?

This research question was explored from two perspectives: "How much time would teachers devote to inservice if given a stipend equivalent to their regular salary?" and, "How much time would teachers devote to inservice if they were not paid?" Table 3.19 depicts the findings. If paid, 40.9 percent of the teachers would devote more than ten days to inservice, but only 7.2 percent would devote that much time if not paid. Of interest is the fact that if they were not paid, less than one-fourth, 23.6 percent, of the teachers indicated they would devote "no time" to inservice training activities.

Research Question 10 asked:

> How much time do teachers perceive they have devoted to staff development activities?

Table 3.20 describes teachers' responses to the number of staff development activities attended last year. Adjusted frequencies are rank ordered for each response. The largest number, 24.8 percent, of teachers attended two programs, followed by 20.8 percent that attended three programs.

Research Question 11 asked:

> What factors do teachers identify as having hindered their prior participation in staff development programs?

TABLE 3.19

AMOUNT OF TIME TEACHERS WOULD DEVOTE TO INSERVICE

Time	With Pay		Without Pay	
	Frequency	Percent	Frequency	Percent
1 day	8	2.0	51	12.7
2 days	8	2.0	65	16.2
3 to 5 days	99	24.7	119	29.6
6 to 10 days	111	27.7	43	10.7
More than 10	164	40.9	29	7.2
No Time	11	2.7	95	23.6
	N = 401		N = 402	

TABLE 3.20

NUMBER OF INSERVICE PROGRAMS TEACHERS ATTENDED LAST YEAR

Number Program	Frequency	Percent	Rank
Two	98	24.8	1
Three	82	20.8	2
More than Four	68	17.2	3
One	64	16.2	4
None	53	13.4	5

N = 395

Teachers were asked if they had attended as many inservice programs last year as they would have liked to attend. Table 3.21 shows that responses were about split with 50.8 percent responding "Yes," and 49.2 percent responding "No." Table 3.22 describes the reasons given by those poeple who did not attend as many inservice programs as they would have liked.

As can be seen in Table 3.22, the most frequent reasons for not attending inservice programs included: job responsibilities would not permit; could locate no programs scheduled at the appropriate times; no funds for travel and/or fees; and could locate no programs of interest. To further explore this research question, teachers were asked if over the past two years there was a particular inservice program they would have liked to attend but could not or did not attend. Additionally, they were asked their reason for not attending. Table 3.23 demonstrates that 46.3 percent of teachers wanted to attend an inservice over the past two years. They did not attend because: "my job responsibilities required my continuous attention at the time," or "could not secure the necessary funds for travel and/or fees." The reasons for not attending are described in Table 3.24.

Research Question 12 asked:

> What are teachers' perceptions of attractive rewards for attending inservice programs?

Teachers responded to ten factors which are viewed as possible incentives for attending inservice programs on a Likert-type

TABLE 3.21

DID TEACHERS ATTEND AS MANY INSERVICE PROGRAMS

LAST YEAR AS THEY WOULD HAVE LIKED TO ATTEND?

Response	Frequency	Percent
Yes	197	50.8
No	191	49.2

N = 388

TABLE 3.22

REASONS FOR NOT ATTENDING INSERVICE LAST YEAR

Reasons	Frequency	Percent	Rank
Job Responsibilities would not permit	55	19.9	1
Could locate no program scheduled when could attend	53	19.2	2
Could obtain no funds for travel/fees	46	16.6	3
Could locate no programs of interest	45	16.3	4
Could obtain no released time	29	10.5	5
Other	29	10.5	5
Generally find inservice to be a "waste of time"	19	6.8	7

Number of respondents = 191

Number of responses = 276

TABLE 3.23

WAS THERE A PARTICULAR INSERVICE PROGRAM DURING THE LAST TWO YEARS TEACHERS WOULD HAVE LIKED TO ATTEND BUT DID NOT ATTEND?

Response	Frequency	Percent
Yes	182	46.3
No	211	53.7

N = 393

TABLE 3.24

REASONS FOR NOT ATTENDING INSERVICE PROGRAMS DURING THE LAST TWO YEARS

Reason	Frequency	Percent	Rank
Job responsibilities required attention	69	29.3	1
No funds for travel or fees	61	25.9	2
Did not learn of program until too late	35	14.8	3
Other	33	14.0	4
Could not obtain released time	33	14.0	4
Peers discouraged participation	4	1.0	6

Number of respondents = 182

Number of responses = 235

scale of "detractive" to "strongly attractive." Table 3.25 presents the frequency in each category for each reward, the mean, and rank order. Seen as most attractive were: (1) "school district paying expenses," (2) "school district awarding points toward salary increase," and (3) "receiving college credit." Receiving a certificate of achievement for attending as well as program location were viewed by teachers as inconsequential.

Table 3.26 depicts teachers' responses when asked to select the most attractive reward. Frequency, adjusted frequency, and rank per reward are shown. This further supports the data in Table 3.25 that financial rewards are considered by teachers to be the strongest motivator.

Research Questions 13, 14, and 15 asked:

> What is the perceived percentage of time the principal devoted to planning and implementing staff inservice programs?
>
> What is the total amount and sources of funds spent annually on staff development?
>
> What is the relationship of the size of the school and the number of staff development activities offered to teachers?

Table 3.27 contains the basic descriptive data obtained from the principals. As can be seen, principals spent from 3 percent to 20 percent of their time with inservice activities. A wide disparity existed in amount spent for staff development with most schools being totally funded from the district. No relationship existed between school size and the number of programs offered.

TABLE 3.25

TEACHERS' PERCEIVED REWARDS FOR ATTENDING INSERVICE

Reward	Detrac-tive	Inconse-quential	Attractive	Strongly Attractive	Mean	Rank
School District Paying Expenses	.2	5.2	28.0	65.8	3.6	1
Points for Advancing on Salary Scale	3.7	9.2	29.5	56.14	3.4	2
Receiving College Credit	3.0	12.4	31.7	52.0	3.34	3
Received Released Time	3.0	12.6	41.3	42.1	3.23	4
Fulfilling Certification Requirements	4.0	25.7	26.7	42.1	3.08	5
Presentation by Recognized Scholar	3.2	19.8	43.8	31.4	3.05	6
Other	.7	3.0	1.5	3.7	2.91	7
Opportunity to Travel	7.7	33.7	34.9	21.8	2.72	8
Widespread Peer Participation	4.5	39.9	39.4	14.9	2.65	9
Program in Attractive Location	4.7	53.2	31.2	9.9	2.46	10
Certificate of Achievement	12.1	60.1	18.6	7.9	2.22	11

N = 404

TABLE 3.26

THE MOST ATTRACTIVE REWARD TO TEACHERS FOR PARTICIPATING IN INSERVICE TRAINING

Reward	Frequency	Percent	Rank
School District Paying Expenses	140	35.8	1
Points For Advancing on Salary Scale	77	19.7	2
Receiving College Credit	58	14.8	3
Presentation by Recognized Scholar	42	10.7	4
Receiving Released Time	20	5.1	5
Fulfilling Certification Requirements	20	5.1	6
Opportunity to Travel	15	3.8	7
Widespread Peer Participation	8	2.0	8
Other	7	1.8	9
Program in Attractive Location	2	.5	10
Certificate of Achievement	1	.3	11

N = 404

TABLE 3.27

DESCRIPTIVE STAFF DEVELOPMENT DATA BY SCHOOL

School	Student Population	Grades	# Programs Last Year	Funding Total Source	% of Principal Time Spent
A	708	6,7,8	4	$800.00 District	5
B	537	5-8	2	$1,500.00 District	10
C	2600	6-9	5½	$2,000.00 District	5
D	920	6-8	5*	$10,000.00 Federal	10
E	435	7-8	6	$11,000.00 District	3
F	725	6-8	2	$15,000.00 District	7
G	940	7-9	2	$100.00 District	20
H	529	7-9	6.5	$500.00 District	20
I	425	7,8	1	$1,000.00 District	10
J	803	7,8	3	$3,600.00(20% Federal)	10

*An additional 200 days of substitute time was used for teachers to develop individualized curriculum.

Research Question 16 asked:

> What are the rewards offered to teachers for attending staff development activities?

Table 3.28 shows the rewards or benefits offered to teachers for attending inservice as well as the principals' perceptions of the most effective reward. Six benefits typically offered to staff development participants were listed, as well as a category where principals could list "other" rewards. The most frequent benefits provided according to principals were "released time" and "university credit." "School district credit for pay purposes" and "travel expenses" were offered in half of the schools.

Principals' perceptions of the most effective reward were scattered. Thirty percent believed "providing released time to teachers" to be the most effective incentive for attending inservice.

Research Question 17 asked:

> What are factors perceived by principals as hindering the more effective implementation of inservice programs?

Several items on the questionnaire were closed-ended and asked the respondents to do one of several things: (a) to rank a number of possible factors in the order in which they affect the provision of staff development opportunities, (b) to choose the factor(s) which created the most difficulty; or (c) to react to each of several factors on a Likert-type scale. Other items were open-ended, but were aimed at securing the same type of information as the closed-ended questions.

TABLE 3.28

BENEFITS OFFERED TO INSERVICE PARTICIPANTS

Benefit	Frequency	Percent	Most Effective Benefit Frequency	Percent	Rank
Released time	8	24	3	30	1
Stipend	3	9	2	20	2
School district credit for pay	5	15	2	20	2
University credit	8	24	1	10	4
Certificate	2	6	1	10	4
Other	2	6	1	10	4
Travel expenses	5	15	0	0	7

Number of respondents = 10

Number of total responses = 33

Table 3.29 illustrates principals' perceptions of reasons teachers do not attend inservices. Table 3.30 lists impediments as perceived by principals to more widespread participation, and Table 3.31 shows the difficulties in designing and implementing inservice programs.

"The topics were not of interest," a "disappointment with past programs," and "the feeling that staff development is generally a 'waste of time'" were ranked in that order by principals as reasons teachers give for not attending inservice. The major impediments to more widespread participation in staff development programs, according to principals, were "lack of motivation by teachers," "an inadequate training staff for conducting inservice," "a difficulty in scheduling a time for inservice," and "a lack of funds for released time." Finding skilled trainers to conduct inservice and identifying attractive topics for staff development programs offered the greatest difficulties to principals in designing and implementing staff development programs. Problems were often expressed in these terms by principals:

> There is a lack of interest, time, money, and materials to provide effective inservice.
>
> Time is the enemy. The State Department of Education limits the number of days which a school district can assign pupils so that teachers can participate in staff development activities.
>
> Time and money are my problems.

TABLE 3.29

PRINCIPALS' PERCEPTIONS OF REASONS

TEACHERS DO NOT ATTEND INSERVICE

Reasons	Most Frequent Reason* 3	Second Most Frequent Reason* 2	Third Most Frequent Reason* 1	Sum	Rank
No topic of interest	12	4	2	18	1
Disappointed with past program	9	0	4	13	2
Staff development "a waste of time"	3	8	1	12	3
Scheduled at times could not attend	3	6	0	9	4
Other	3	0	0	3	5
Job responsibility would not permit	0	0	2	2	6
No travel funds	0	2	0	2	7
Superiors took a dim view	0	0	0	0	8
No released time	0	0	0	0	8

N = 10

*Note: Frequencies were calculated by multiplying the number of responses in each category by a weighted response value. "Most Frequent Reason" was assigned a weight of 3, "Second Most Frequent Reason" a weight of 2, and "Third Most Frequent Reason" a weight of 1. The sum was calculated by adding across categories.

TABLE 3.30

IMPEDIMENTS TO MORE WIDESPREAD PARTICIPATION

Reason	Most Troublesome*					Least Troublesome*			Sum	Rank
	8	7	6	5	4	3	2	1		
Lack of motivation	48	7	6	5	0	3	0	0	69	1
Inadequate training staff for conducting	8	0	18	20	8	3	2	0	59	2
Difficulty in scheduling a time	16	21	12	0	4	0	0	0	53	3
Lack of funds for released time	8	21	12	5	0	6	0	0	52	4
Inadequate training materials	0	0	6	10	16	0	2	0	34	5
Lack of support from superiors	0	7	12	0	0	3	6	2	30	6
Limitations imposed by contracts	8	0	0	0	8	6	0	4	26	7
State or other non-district regulations	0	7	0	5	0	3	6	2	23	8

N = 10

*Note: Frequencies were calculated by multiplying the number of responses in each category by a weighted response value, with "Most Troublesome" being assigned a weight of 8 to "Least Troublesome" a weight of 1.

TABLE 3.31

DIFFICULTIES IN DESIGNING AND IMPLEMENTING

STAFF DEVELOPMENT PROGRAMS

Reason	Most Difficult 6	5	4	Least Difficult 3	2	1	Sum	Rank
Skilled trainers	12	5	20	6	0	0	43	1
Topics which are attractive	36	0	0	3	2	1	43	2
Scheduling	12	15	0	0	6	1	33	3
Scholars to speak	6	10	4	9	0	2	31	4
Materials	6	5	8	3	6	1	29	5
Site which is attractive and cost effective	6	10	4	3	2	1	26	6

N = 10

*Note: Frequencies were calculated by multiplying the number of responses in each category by a weighted response value, with "Most Difficult" being assigned a weight of 6 to "Least Difficult" a weight of 1.

The question, "If your inservice budget were suddenly increased by 25 percent how would you spend the money?" brought a variety of responses. Five of the seven principals who responded to this open-ended question would spend at least some of the money to secure qualified consultants.

A Model Inservice Program

Although many other factors would demand consideration in a "real life" situation, the following "model" inservice program, is derived solely from the mean responses of the 404 teachers who completed the survey instrument.* Perhaps this model will illustrate the scope and specificity of the information provided when using an expanded needs assessment approach. Based on an inferred need (experience - interest), "uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives" would be the title of the inservice activity (a future workshop would be planned on motivation). A team of teachers would plan and organize the inservice based on input from their co-workers. The programs would be "intensive" and last for two days, and scheduled during a work week in March. Discussion groups of six to ten persons led by teachers who had extensive experience in using computers in

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*See Appendix K for A Model Inservice Program for one sample school based upon the mean teacher responses at that school.

their classrooms would be the primary mode of instruction. Additionally, teachers would have the opportunity on the second day to visit a school with a computer system for managing instruction in operation. Substitute teachers would be covering participants' classes, thus allowing them to participate to their fullest in the inservice.

As should be true of all inservice programs, the availability of the program would be announced months before it was held and frequently publicized in the interim. As soon as the teacher enrolled in the program, he or she would be interviewed to determing his or her specific needs and preferences for all aspects of the program. This may be depicted according to the model in Figure 3.1.

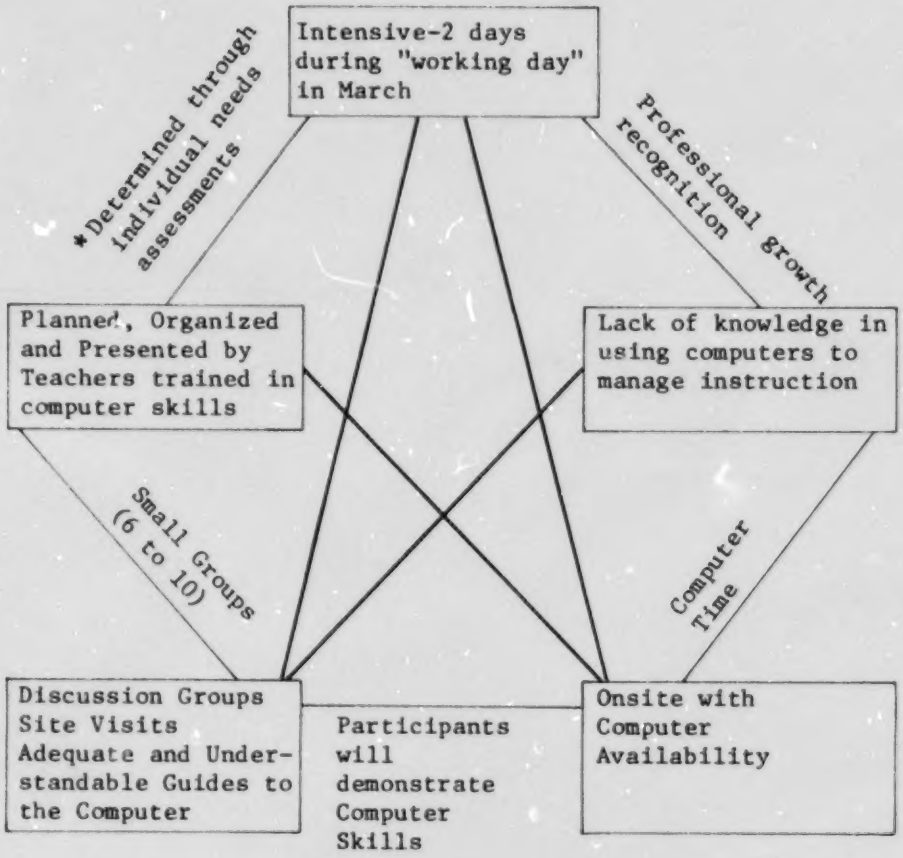
Intensive-2 days during "working day" in March
*Determined through individual needs assessments
Professional growth recognition
Planned, Organized and Presented by Teachers trained in computer skills
Lack of knowledge in using computers to manage instruction
Small Groups (6 to 10)
Computer Time
Discussion Groups Site Visits Adequate and Understandable Guides to the Computer
Participants will demonstrate Computer Skills
Onsite with Computer Availability

Figure 3.1 A Model Inservice Program Based Solely on the Mean Responses of the 404 Teachers Who Participated in This Study.

*The topic for the "model inservice program was based on an inferred need (experience - interest).

CHAPTER IV

SUMMARY, FINDINGS, CONCLUSIONS, AND IMPLICATIONS

This chapter consists of four sections. The first section presents a brief overview of the study. The second section gives a summary of the major findings. The third section contains the conclusions of the study. The final section suggests implications for practice and for further research.

Overview of the Study

This research study focused on the staff development needs and preferences of teachers in selected middle and junior high schools involved in individualized schooling and associated with the Wisconsin Research and Development Center. A major goal of individualized schooling is to provide each student with an educational program appropriate to the student's rate of learning, motivation, interests, and previous achievement. This goal cannot be realized without adequate staff training.

This study sought, therefore, (1) to identify the staff development topical needs of teachers engaged in individualizing schooling, (2) to identify the staff development strategies preferred by teachers engaged in individualizing schooling, and (3) to analyze the functional and dysfunctional aspects of strategies

of staff development. In addition, the relationship of certain personal variables to staff development needs was explored and a total synthesis of a model staff development program was constructed.

The conceptual and theoretical foundations of this study included social systems theory, change theory, and the literature dealing with staff development. Social systems theory provided the basic analytic framework for studying the relationships between institutional and personal factors in viewing staff development needs and programs. As seen within the social system, staff development activities "blend" group, climate, and intentions with the nomothetic and idiographic dimensions. This transactional use of social systems theory provides an awareness of the limits and resources of both the institution and the individual when dealing with behavioral change.

Change theory provided the basis for understanding the different approaches schools use to improve. It also provided a framework within which to explore the change process. Four models of change were considered: (1) the problem-solving model, (2) the social interaction model, (3) the research-development-diffusion model, and (4) the linkage model.

Staff development literature helped explain the antecedent-consequent relationships and connections among variables. It also provided the model for data organization and analysis.

The methodology of this study was survey research. Questionnaires and a semistructured interview protocol were developed and used to gather the data. The researcher visited each of the ten selected schools and administered uniformly the questionnaires to 404 teachers and the ten school principals. A semistructured interview was used to probe for more information, seek further verification of what had been previously stated, and clarify intended meanings of certain questions. The collected data were coded and analyzed according to the sixteen research questions addressed in the study.

Findings

The major findings of the study are presented in this section.

Staff Development Topical Needs

Of the 404 teachers surveyed, over 75 percent had at least a moderate interest in attending an inservice activity on all 22 of the topics presented. Teachers were most interested in staff development workshops on "techniques for motivating students," "ways of grouping students so as optimally to personalize their instruction," and "ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student." Participants' experiential background information is also essential knowledge to the program planner.

Teachers considered themselves most experienced in the areas of "reporting student progress to parents," "writing objectives," and "techniques for motivating students." The discrepancy between respondents' levels of experience with a topic and interest in the topic was the inferred need. Based on this calculation of need, over 50 percent of teachers in the sample had a need for workshops on the topics of "computer uses" and "motivation." The topical areas of greatest need for teachers of their staffs, according to principals, were: "techniques for motivating students"; "practices and programs in dealing with students' personal, social, emotional and moral development"; and "materials for use with students in the advisement program." "Techniques of motivating students" was the topic teachers would recommend as being most beneficial to improving instruction.

Teachers' level of academic attainment, years of teaching experience and area of teaching responsibility were found to influence their need for given staff development topics.

Staff Development Strategies

As well as ascertaining participants' topical needs for staff development workshops, this study investigated the preferred strategies for providing the needed inservice program. The areas of time structure, location, learning strategies, and characteristics of the teacher/trainer were explored.

Time Structure. The scheduling difficulties experienced by inservice planners are understandable when one examines teachers' preferences for inservice programs. The overwhelming majority of teachers preferred that inservice programs take place during regularly scheduled working times.

Seventy-three percent of teachers preferred that inservice programs be held during the working day. On the other hand, 13.3 percent preferred inservice be scheduled during the summer, and 10.1 percent preferred after working hours. March, October, and February were identified as the months which would be most convenient for teachers to attend inservice programs. May and December were cited as the least convenient times.

In addition to the time at which a program is held, it is appropriate to ascertain the preferred length of an inservice program. In general, an inservice program can take one of two forms: it may be intensive, involving only one gathering of the participants and lasting for one or more days, or it may consist of a series of gatherings held on a regularly scheduled basis (i.e., a continuing program). Sixty-eight percent of teachers preferred an intensive format and 43.9 percent preferred it last for two days. Over 36 percent suggested the intensive inservice be scheduled for three to five days. Thirty-two percent of respondents preferred a continuing inservice and 46.4 percent of those teachers would like it to meet on a weekly schedule.

The Environment: Location of the Program. Vitally connected to the scheduling and duration of an inservice program is the selection of a site for holding the program. The program being located in an attractive location was rated as inconsequential by 53.2 percent of teachers. The opportunity to travel was rated as detractive by 7.7 percent of respondents and inconsequential to 33.7 percent. However, over 50 percent found the opportunity to travel at least attractive.

Learning Strategies. Although it is important to offer a program at a time and place which permit and attract the attendance of participants, an inservice program cannot be effective unless it maximizes learning. Therefore, the choice of instructional activities and the conditions which surround those activities are crucial. Planning the inservice around the learners' preferred mode of instruction can often help ensure its success. Site visits were at least mildly preferred by 81.9 percent of teachers, followed very closely by discussion groups being rated at least as mildly preferred by 80.9 percent. These were the overwhelming learning style preferences as voiced by teachers. When ranking their most preferred mode of instruction, 123 teachers (33 percent) chose discussion groups. Over 82 percent of the teachers preferred a discussion group size of 15 people or less. The ideal size would be six to ten people, according to 42.6 percent of teachers. Therefore, the majority of teachers preferred to learn in small

groups. The lecture method was chosen by 16 percent of teachers as their most preferred mode, but on the other hand 11 percent chose it as their least preferred mode. Role playing was ranked as the least preferred mode of instruction by 20 percent of the teachers.

Characteristics of the Teacher/Trainer. If teachers most prefer the discussion mode, then the preferred teacher should be someone skilled in leading such a technique. Teachers preferred overwhelmingly (66.1 percent) that local teachers should plan and organize inservice and that teachers assisted by professional educational organizational staff, college and university professors, and personnel from university related agencies should conduct inservice. Principals felt primarily that local teachers, principals, and central office staff should plan and organize teacher inservice and be joined by college/university professors and personnel from university related agencies in actually conducting the inservices.

Functional and Dysfunctional Aspects of Strategies of Staff Development

In order to provide a more complete base upon which to posit a plan of action for improved inservice, respondents' receptivity to inservice, as well as those factors which impede and promote inservice were examined.

Motivation: The Climate of Receptivity for Inservice Programs in General. The level of overall interest was substantiated by the fact that 86.6 percent of teachers had taken the time to

attend at least one inservice program last year, 70.4 percent had attended at least two programs, and 45.6 percent had attended more than three. This assertion was further supported by the fact that 49.2 percent of the teachers did not have the opportunity to attend as many inservice programs as they would have liked to attend last year.

If the inservice was on a topic of interest and teachers were paid a stipend for attending, then 97.3 percent of the teachers would devote at least one day to professional development, 97.3 percent would be willing to devote at least two days, and 93.3 percent indicated an interest in attending at least three to five days of inservice activities. Over 49 percent of the teachers would attend staff development activities for more than ten days. If teachers were not paid for attending inservice, a surprising number, 76.4 percent, would still devote one day of their own time to attending inservice programs. If programs were on topics of interest, then 63.7 percent would devote two days of their own time to staff development activities.

Given the teachers' expressed interest in attending inservice programs, it is appropriate to investigate what factors hindered their more widespread participation.

Factors Hindering Participation and Implementation of Inservice Programs. The 191 teachers, 49.2 percent of the sample who stated they had not attended as many inservice programs as they

would have liked to attend last year were scattered on their reasons for not attending. Over 19 percent indicated their job responsibilities would not permit their attendance; 19.2 percent stated they could locate no programs scheduled at appropriate times. Sixteen and six-tenths percent and 16.3 percent, respectively, indicated that they could obtain no funds for travel and/or fees or they could locate no programs of interest. These findings were confirmed by the responses of the 182 teachers (46.3 percent of the sample) who indicated there was a particular inservice program during the last two years they would have liked to attend but did not because of job responsibilities requiring constant attention (29.3 percent) and that no funds were available for travel and/or fees (25.9 percent). It would seem, therefore, that the failure by teachers to attend their desired number of inservice programs arose primarily from the responsibilities attached to their jobs--they were simply unable to leave their posts, and they lacked funds for travel and/or fees.

Principals' perceptions of reasons teachers do not attend inservice differed from teachers' perceptions. Topics not being of interest to teachers, disappointment with past programs, and teachers' perceptions that staff development was "a waste of time," were ranked in that order by principals. Only 6.8 percent of the teachers, however, indicated they generally found inservice to be a "waste of time."

Principals also felt that lack of motivation by teachers was the greatest impediment to more widespread participation in staff development programs. Other impediments ranked in order were: inadequate training staff for conducting workshops, difficulty in scheduling a time, and lack of funds for released time.

When all responses by principals were considered, three interrelated problems emerged as overshadowing all others:

1. Overcoming a lack of motivation by participants.
2. Identifying and providing for the varied needs and interests of teachers.
2. Scheduling and securing the time of program participants.

Factors Promoting Participation in Inservice Programs. In an attempt to reward participants and/or motivate their attendance, a number of features may be incorporated into an inservice program. Over half of the teachers ranked "school district paying expenses" (65.8 percent); "receiving points to advance on the salary scale" (56 percent); and "receiving college credit" (52 percent) as strongly attractive rewards. Receiving a certificate of achievement and having the program held in an attractive location were rated as inconsequential by over half of the respondents. This finding was further supported by the fact that teachers rated "school district paying expenses" (35.8 percent) as the most attractive reward. "Receiving points for advancing on the salary scale" and "receiving college credit" were ranked second and third.

Benefits typically offered to teachers for participating in inservice programs ranked in order by principals were: "receiving released time" (24 percent); "university credit" (24 percent); "school district credit for advancement on salary scale" (15 percent); and "paying travel expenses" (15 percent). Principals perceived the most effective benefit to be "released time" (30 percent), followed by "school district credit for advancement on salary scale" (20 percent) and "receiving a stipend" (20 percent).

Conclusions

The three major purposes of the study were (1) to identify staff development topical needs of teachers engaged in individualizing schooling, (2) to identify staff development strategies preferred by teachers engaged in individualizing schooling, and (3) to analyze the functional and dysfunctional aspects of strategies of staff development. Based on the findings of the study, the following conclusions were drawn.

Conclusion #1. Respondents' identifications of needed inservice activities varied according to the individual differences between teachers and principals. All 22 identified topics were recognized by teachers and principals as being potentially useful. Specifically, those identified by teachers in which a need may be inferred included "uses of the computer in managing instruction," "student motivation," and "student learning experiences within the

community." Principals identified 20 of the 22 topics as being needed by their respective staffs. "Student motivation"; "student personal, social, emotional, and moral development"; and "developing materials for the student advisee program" were seen by principals as being the most needed. When teachers were asked to recommend the topics most beneficial to someone wishing to improve instruction they chose "techniques for motivating students," "organizing curriculum to secure continuous progress for each student," and "student grouping to personalize instruction."

Conclusion #2. Teachers' preferences for the design of an inservice program varied according to individual differences. Teachers preferred active rather than passive learning modes and to have the responsibility for their own learning. Professional growth was recognized as an added job skill and one that should be learned witnin the confines of the regular working day.

Conclusion #3. Teacher motivation to participate in inservice activities resulted from a number of separate stimuli, financial aspects being the most important and multifaceted. Dysfunctional conditions resulted when job responsibilities prevented participation or when funds were not available to allow teachers' travel to meaningful programs. However, when principals were asked to identify teacher readiness to participate in inservice activities, they indicated that lack of teacher motivation was an impediment. Principals did not identify financial aspects as primary motivators for teacher participation but that the quality of

program, inservice history, and time waste were inservice detractors. To principals, the lack of funds to hire skilled trainers was a major imepdiment.

Implications for Practice and Research

This section includes a discussion of the implications for practice which could be deduced from the results of the study. The final portion of the chapter discusses suggestions for further research.

Implications for Practice

School personnel at all levels desire to improve the functioning of the educational system. This study, limited to staffs of middle and junior high schools seeking to implement programs of individualized schooling, offered the following suggestions to improve staff development programs:

1. Before an inservice program is designed and offered, one must assess the interest levels of prospective participants, as well as their experiential backgrounds. An assessment that includes experiential background serves three purposes. First, it allows the calculation of a measure of need--"the arithmetic difference between a respondent's level of interest and his/her level of experience." Second, the information provides the inservice planner to be better able to determine

the breadth and depth with which a topic should be introduced and addressed. Third, the experience scale may identify individuals who could serve as valuable resources. Thus, it could provide the information needed for the creation of a human resources bank, a list of highly skilled teachers who could be called upon to lead inservice workshops.

2. If the inservice program is presented on topics of interest to teachers, they will attend some inservice activities on their own time without receiving a stipend. To take advantage of this orientation, the idea of matching days could be developed. This concept involves teachers being able to attend an inservice program during the day, provided they are willing to return comparable time at a later date for follow-up with the principal and/or other teachers.
3. If teachers are not interested in participating in in-service activities, then efforts must be expended on ascertaining the reasons for this condition and on altering the climate of receptivity. The expanded needs assessment approach utilized in this study would be one way to do this.
4. Provisions should be made by the district to allow teachers to be away from their jobs to attend staff development programs. The use of permanent revolving

substitutes might be explored to assuage the problems caused by teacher absence from classes.

5. If funds can be secured to pay training and registration fees, then more teachers will attend inservice. Inservice budgets should be developed to include travel costs, conference fees, and substitute costs.
6. Inservice programs within the district must be designed and advertised long before they are delivered, so that teachers can make provisions for participation.
7. Teachers see professional development as part of their "regular duties." Such activities must be supported by their school district.
8. Whether the inservice is "intensive" or "continuing," it should be based on the preferences of the teachers who participate.
9. Since time is a valuable commodity to the teacher, travel time for inservice should be cut to a minimum--unless additional traveling brings extra benefits to the program.
10. Evidence quite clearly points to the discussion method as being the most preferred instructional mode for inservice programs. Teachers wish to take an active rather than a passive role in their own learning and prefer learning in small groups of from six to ten people.

11. Teachers should have the primary role in planning, organizing, and implementing their staff development activities.
12. Perhaps if more money were secured for inservice education and used to support the implementation of a wider range of different offerings, the topics of the program could be made more specific rather than general; the needs of the client would be more fully realized, and the participants' lack of motivation would vanish.

Implications for Research

This concluding section contains suggestions for further research. The following warrant further consideration and investigation.

1. This study did not incorporate senior high or elementary school teaching staffs. Such studies are needed to provide additional need topics, structural preferences, and motivational aspects of teachers at all levels.
2. An often unstated purpose of staff development programs is to improve teachers' self-perceptions. A longitudinal study should be done to explore whether or not participation in staff development activities is related to teacher job satisfaction and behavior.
3. Do skills teachers acquire in staff development activities carry over to student learning in the classroom?

Since staff development is a tool for educational improvement, it is important to determine whether or not teacher participation in staff development is related to students' cognitive and affective development.

4. This study was undertaken in schools that individualize instruction. This study should be replicated in other middle and junior high schools.

In short, additional research is needed to improve identification of teacher needs, structural aspects, and impediments vis à vis staff development programs. Additionally, efforts need to be made to determine how staff development participation relates to teacher job behavior and satisfaction. It is hoped that this study has provided insights for future research regarding teacher involvement in staff development activities as a means for improving the quality of education in the years ahead.

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APPENDIX A

TELEPHONE INTERVIEW SCHEDULE

Telephone Interview Schedule

A. Introduce myself as a project assistant from the Wisconsin Research and Development Center.

B. Refer to the mission of the Center.

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling.

The purpose of this particular research effort is to focus on the vital area of staff development for teachers. The results will be directed toward improving the Center's staff development strategies and materials, currently under development. Individual schools which participate will be provided with a comprehensive needs assessment based on the responses of their staff.

C. Mention that the school is being considered because of its identification by Profiles. In order to update our records from last year and choose the sample for this study, may we ask you a few questions.

D. Ask if the present is a convenient time to pursue the matter. If not, establish a more appropriate time.

E. If it is convenient, ask the following questions:

School _____ Phone _____

Principal _____ Number of teachers _____

1. Do you have administrative arrangements at your school which facilitate schoolwide shared decision making (e.g., IIC)? _____

   Composition _____

   How often does it meet? _____

2. Are teachers organized into teams? _____

   Subject or interdisciplinary? _____

   How extensive? _____

   Size? _____

   Do they meet together? _____ How often? _____

   Do they coordinate subject areas? _____

   Do they have flexibility to change the day's schedule? ___

3. Do you have a teacher-student advisory program? _____

   How extensive? _____

   Plan student course work? _____ Monitor achievement? _____

   Assist in scheduling? _____ Provide personal guidance? ____

   How often does the student meet with his/her advisor? _____

   _____ How long? _____

4. Does your instructional program in the basic subjects of language arts, math, reading, social studies and/or science allow for individualized learning? _____ Describe _____

   _____

   _____

   Are courses divided into smaller units? _____

Do students move at their own pace through the units? _____

When a student completes a unit does he/she move into another unit, e.g., continuous progress? _____

Multiage grouping? _____ Flexible grouping? _____

Independent study? _____

5. Do the teachers in each unit use pre- and post-test evaluations in order to monitor student progress in each unit of instruction? _____

6. The implementation of IGE may be viewed in terms of a five-phase change model. At what phase of change would you rate your school?

Awareness _____
Commitment _____
Changeover _____
Refinement _____
Renewal _____

F. Ask in the school would be willing to cooperate in the proposed research study. Mention that the final selection of schools will be made in the near future and that I will contact them again soon.

G. Thank the persen for his/her time, interest, and cooperation.

Comments:

APPENDIX B

ABSTRACT AND LETTER OF EXPLANATION

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN-MADISON SCHOOL OF EDUCATION
1025 W Johnson Street Madison, Wisconsin 53706 (608) 263-4200

Dear

It was a genuine pleasure to visit with you again by telephone and update our records on your school. The progress you are making in organizing your school to meet the needs of all students is indeed exciting.

I have discussed with my committee the information you provided and your school has been selected as an appropriate place to conduct my proposed study on staff development. Enclosed is an abstract of the study and the survey instrument which your staff will complete. I will need to meet with all of your teachers for about 20 minutes to administer the instrument. Additionally, I would like to visit in your school the following day and interview you and at least three teachers to clarify the questionnaire information.

I will telephone you very soon to discuss the research project and to arrange an appropriate time to visit your school.

Should you need to contact me, please do so at 608-263-3179.
I am looking forward to visiting with you!

Cordially,

Judy Lehr
Project Assistant

Enclosures

Abstract

STAFF DEVELOPMENT NEEDS IN SECONDARY SCHOOLS

THAT INDIVIDUALIZE INSTRUCTION

The purposes of this study are: (1) to identify staff development needs and strategies which aid teachers in individualizing schooling; (2) to analyze the functional and dysfunctional aspects of these strategies; (3) to construct appropriate staff development models for schools desiring to implement programs of individualized schooling at the secondary level. Selected schools identified in Profiles of Successful Innovating Secondary Schools: Associated Network of IGE Middle, Junior and Senior High Schools and Other Schools With Innovative Programs, 1978 will compose the sample. Teachers from each participating school will indicate their staff development preferences, needs and experiences on a questionnaire. Participants' topical needs as well as structural preferences for staff development activities will be gathered. Input through the questionnaires from principals will focus on the current status of staff development programs at each school. Personal interviews will be conducted with the principal and three teachers to expand and clarify the information gathered from the questionnaire. The study should produce a better understanding of staff development programs as well as point to new and better staff development delivery systems.

APPENDIX C

STAFF DEVELOPMENT SURVEY

TEACHERS' INSTRUMENT PACKAGE

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN - MADISON · SCHOOL OF EDUCATION
1025 W. Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

October 26, 1978

Dear Colleague:

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling. This study focuses upon the vital area of staff development for teachers. The results will be directed toward improving the Center's staff development strategies and materials, currently under development.

I would like to ask you to please take the time to complete the attached questionnaire. The results of this study will contribute to a better understanding of the environment in which staff development programs are conducted as well as point to new and better staff development activities.

Thank you for your kind assistance.

Sincerely,

Judy Lehr
Project Assistant
IGE/S Project

Attachment

BEFORE RESPONDING TO THIS QUESTIONNAIRE, PLEASE REVIEW THE BRIEF OVERVIEW (BELOW) OF INDIVIDUALLY GUIDED SECONDARY EDUCATION.

Individually Guided Secondary Education

In schools which are implementing Individually Guided Secondary Education decision-making groups are formed with the primary purpose of giving the person who is responsible for carrying out the decision a significant role in the formation of that decision. Instruction and Advisory Units composed of students and a cooperative team of teachers are formed. Each team of teachers is responsible for arranging instruction that is suitable for the individual students of the Unit and also for advising the students regarding educational and other matters. Arranging instructional programs appropriate for the individual students of the Unit has two facets: First, arranging a total educational program of course work and other activities for each student each semester which is suited to the student's educational needs and career interests; and second, arranging instruction within each course so that it meets each student's abilities and other learning characteristics. Student attainment of instructional objectives is promoted through the development and/or selection and use of equipment, instructional materials, and supplies that are cost effective in terms of student learning and teacher time and effort. Evaluation of the students' learning and their instructional programs is carried out systematically in the attempt to promote student learning and to continually improve the quality of instruction. A program of home-school-community relations fosters communications between the school and the community, and particularly with the student's parents who share many important curriculum and career decision matters with the student, the student's advisor, and the guidance counselor. Students also participate in community learning activities and work experiences.

A-1 Experience-Interest Inventory

Responding to this inventory assumes that you are already carrying out some aspect of Individually Guided Secondary Education as previously described or that a decision has been made to start doing so within the next semester. As a teacher, please first indicate your experiences in inservice professional development programs, activities, or sessions for each topic in the Experience column of Part A of the Answer Sheet. Second, in the Interest column of Part A indicate the extent to which you would be interested in learning more about each topic. Use the following definitions:

Experience categories:

4) Expertise--have extensive experience in the area and could serve as a consultant to other teachers.
3) Some experience--have some experience in the area, but am not expert.
2) Some knowledge--am quite familiar with the concept or practice, but have no direct experience in carrying it out.
1) No knowledge--have heard or read about it only incidentally.

Interest categories:

4) Very strong--if at all possible would participate in a staff development program on this topic.
3) Strong--would probably participate in a staff development program on this topic.
2) Moderate--would participate in a staff development program on this topic only if it were "convenient" or "required."
1) None--would not attend inservice on this topic.

Remove the Answer Sheet from the back cover and circle the appropriate response for each question. Use Part A of your Answer Sheet.

A-1 Topics for staff development programs:

Include the following introductory clause with each topic:

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

01 terminal objectives related to your field of study.

02 administrative arrangements that provide for an optimum amount of shared decision making.

03 team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students.

04 planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities and evaluating outcomes.

Experience categories:

4) Expertise--have extensive experience in the area and could serve as a consultant to other teachers.
3) Some experience--have some experience in the area, but am not expert.
2) Some knowledge--am quite familiar with the concept or practice, but have no direct experience in carrying it out.
1) No knowledge--have heard or read about it only incidentally.

Interest categories:

4) Very strong--if at all possible would participate in a staff development program on this topic.
3) Strong--would probably participate in a staff development program on this topic.
2) Moderate--would participate in a staff development program on this topic only if it were "convenient" or "required."
1) None--would not attend inservice on this topic.

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

05 ways of grouping students so as to optimally personalize their instruction.

06 procedures for optimum use of open classroom space or other large-group instructional areas.

07 skills in writing the learning objectives for a unit of instruction in your teaching field.

08 ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student.

09 advising arrangements in which each teacher serves as the educational, personal, and career advisor of a group of students with the assistance of a guidance counselor.

10 materials for use with students in the advisement program.

11 practices and programs in dealing with students' personal, social, emotional, and moral development.

12 techniques for motivating students.

13 practices and programs dealing with student career awareness, planning and experiences.

14 learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers.

15 skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.

Experience categories:

4) Expertise--have extensive experience in the area and could serve as a consultant to other teachers.
3) Some experience--have some experience in the area, but am not expert.
2) Some knowledge--am quite familiar with the concept or practice, but have no direct experience in carrying it out.
1) No knowledge--have heard or read about it only incidentally.

Interest categories:

4) Very strong--if at all possible would participate in a staff development program on this topic.
3) Strong--would probably participate in a staff development program on this topic.
2) Moderate--would participate in a staff development program on this topic only if it were "convenient" or "required."
1) None--would not attend inservice on this topic.

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

16 procedures for assessing student minimum competencies in the basic skills.

17 record-keeping procedures and practices regarding individual student achievement.

18 uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives.

19 means of using community resource personnel in the instructional program.

20 opportunities for student learning experiences in the community.

21 procedures for reporting student progress to parents.

22 means of using volunteer aides in the educational program.

A-2 Please indicate other topics not listed above in which you feel a need for staff development training. *(Write the topics on the Answer Sheet.)*

A-3 If you were to advise someone as to what topical area for a staff development workshop could be most beneficial to them in their efforts to improve instruction you would choose number ____. *(Write the number of the topic you would choose on the Answer Sheet.)*

A-4 Total years of teaching experience. *(Write the total number on the Answer Sheet.)*

A-5 Years as teacher at school of current employ. *(Write the total number on the Answer Sheet.)*

A-6 Level of academic attainment. *(Circle one number on the Answer Sheet indicating highest level of academic attainment.)*

1) Bachelor's degree
2) Master's degree
3) Doctoral degree

A-7 Are you involved in team teaching this year? *(Circle one number on the Answer Sheet.)*

1) Yes 2) No

A-8 Would you describe instruction in your classes as: *(Circle one number on the Answer Sheet.)*

1) No adaptation of instruction to meet the different needs of the students
2) Some adaptation of instruction
3) Adequate adaptation of instruction
4) Optimum adaptation of instruction

A-9 Area of major teaching responsibility. *(Circle the appropriate number on the Answer Sheet.)*

1) Academic (Math, Reading, Language Arts, Social Studies, Science)
2) Related Arts (Home Ec., Indus. Arts, Art, Music)
3) Physical Education
4) Special Education
5) Other (specify)

PART B

DESIGN FOR STAFF DEVELOPMENT PREFERENCE INVENTORY

Many variables are involved when considering how to organize and implement a staff development program. While the importance of establishing a program's topic is clear and undeniable, such matters as the desired location of the program, its length, its instructional mode, and rewards for participants are equally relevant concerns. Please help us better understand these areas by responding on Part B of the Answer Sheet to the final 20 questions.

TURN YOUR ANSWER SHEET TO PART B

B-1 Assuming that programs concerning topics of your interest were available and that you were paid a stipend equivalent to your regular salary for attending, approximately how much time would you be willing to spend attending inservice professional development programs during the year, including Saturdays and summer? *(Circle one number on the Answer Sheet.)*

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) no time at all

B-2 Assuming that programs concerning topics of your interest were available and you were <u>not paid</u> for attending, approximately how much of your own time would you be willing to spend attending inservice programs during the year, including Saturdays and summer? *(Circle one number on the Answer Sheet.)*

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) no time at all

B-3 Which of the following do you think should have primary responsibility for <u>planning</u> and <u>organizing</u> inservice professional development programs for teachers? *(Circle the appropriate number on the Answer Sheet.)*

1) local teachers
2) school principals
3) central office staff
4) state education agencies
5) regional educational agency
6) colleges/universities
7) university-related agencies
8) professional educational organizations

B-4 Assuming that programs concerning topics were available and you were interested in the topic, indicate the extent to which the presence of each of the following features would affect your decision to participate in an inservice program. *(Circle a number in one column for <u>each</u> of the items listed below according to the following descriptors.)*

(4) <u>Strongly attractive</u>--would affect my decision to attend.
(3) <u>Attractive</u>--a "nice" feature to have attached to a program, but would not affect my decision to attend.
(2) <u>Inconsequential</u>--would have no affect upon my decision to attend, and I would not care if it were present or not.
(1) <u>Detractive</u>--would have a negative affect upon my decision to attend.

01) school district paying expenses
02) school district awarding points toward salary increases
03) obtaining released time
04) receiving college or university credit
05) fulfilling certification requirements
06) receiving written certificate of achievement
07) holding program in "attractive" location
08) having widespread participation by peers
09) attending presentation by recognized scholar in field
10) having the opportunity to travel
11) other (specify)

B-5 Of the list of features presented in Question B-4 above, which feature is the most attractive to you? *(On the Answer Sheet, write the number of the most attractive feature.)*

B-6 Excluding regular college/university coursework, how many different inservice programs (i.e., programs dealing with distinctly different topics) did you attend last year? Please count conferences as one program. *(Circle one number.)*

1) none 3) two 5) four
2) one 4) three 6) more than four

B-7 Did you attend as many inservice programs last year as you would have liked to attend? *(Circle one number.)*

1) Yes 2) No

B-8 If your answer to question B-7 above was "No," which of the following responses describes your reasons for not attending? *(Circle as many as appropriate.)*

1) I could locate no (or no other) programs which were of interest.
2) I could locate no (or no other) programs which were scheduled at times I could attend.
3) I generally find inservice programs to be "a waste of time."
4) I could not obtain any (or any additional) released time.
5) I could not obtain any (or any additional) support funds for travel and/or fees.
6) My job responsibilities would not permit me to attend.
7) Other (specify)

B-9 Within the last two years, was there a particular inservice program which you would have liked to attend but could not or did not attend? *(Circle one number.)*

1) Yes 2) No

B-10 If your response to Question B-9 was "Yes," which of the following categories describes your reasons for not attending the program? *(Circle as many as appropriate.)*

1) I did not learn of the program until it was too late to make arrangements for attending.
2) I could not obtain released time.
3) My job responsibilities required my continuous attention at the time of the program.
4) I could not secure the necessary funds for travel and/or fees.
5) My participation was discouraged by my peers.
6) Other (specify).

PREFERRED FORMAT FOR STAFF DEVELOPMENT PROGRAMS

In answering the following questions assume that you are interested and committed to participate in an inservice program and that we are trying to fit the format of that program to your preference.

B-11 If an inservice program were held during the year, when should it be scheduled?

1) on weekends
2) during the "working day"
3) after working hours
4) before working hours
5) during the summer

B-12 If an inservice program were scheduled, during which three months (not necessarily consecutive) would it be most convenient for you to attend? *(Circle <u>three</u> numbers on the Answer Sheet.)*

1) August	5) December	9) April
2) September	6) January	10) May
3) October	7) February	11) June
4) November	8) March	12) July

B-13 Generally speaking, which type of inservice programs do you prefer?

1) intensive (only one gathering of the participants which may last for one or more days).
2) continuing (a series of gatherings on a daily, weekly, or monthly basis.

B-14 If you were to participate in an inservice program to be held within easy commuting distance and requiring several meetings of the participants (i.e., continuing), according to which schedule would you prefer that the meetings be held?

1) on consecutive days or nights
2) weekly
3) bi-weekly
4) monthly

B-15 If you were to participate in an inservice program which had only one gathering of the participants (i.e., "intensive"), what is the maximum number of days you feel you could/prefer to leave your job and attend the program?

1) 1 day
2) 2 days
3) 3 to 5 days
4) 6 to 10 days
5) more than 10 days
6) could not attend at all

B-16 What is your preferred maximum size of a discussion group?

1) 5 or fewer people
2) 6 to 10 people
3) 11 to 15 people
4) 16 to 20 people
5) 21 to 30 people
6) more than 30 people

B-17 Which of the following do you prefer conduct inservice programs?

1) local teachers
2) school principals
3) central office staff
4) state education agency personnel
5) regional education agency personnel
6) professional educational organization staff
7) college/university professors
8) university-related agencies staff
9) combination of the above (specify)

B-18 Assuming that each of the following modes of instruction is presented expertly, please indicate your degree of preference for each. *(Circle a number in one column for <u>each</u> item.)*

01) lecture
02) discussion groups
03) simulation
04) gaming
05) computer-assisted instruction
06) programmed learning
07) independent study
08) tele-lecture
09) films
10) case study
11) site visit
12) role playing
13) O.D. (organizational development) process techniques
14) supervised readings
15) internship experience
16) other (specify)

B-19 From the list of instructional modes in Question B-18 which is your <u>most</u> preferred mode?

B-20 From the list of instructional modes in Question B-18 which is your <u>least</u> preferred mode?

END OF QUESTIONNAIRE

Thank You

Place your answer sheet and the signed Consent Form in the questionnaire and give to the researcher.

ANSWER SHEET -- PART A

DIRECTIONS: *Circle the response that is appropriate for each question.*

A-1

	EXPERIENCE				INTEREST			
	Expertise	Some Expertise	Some Knowledge	No Knowledge	Very Strong	Strong	Moderate	None
01	4	3	2	1	4	3	2	1
02	4	3	2	1	4	3	2	1
03	4	3	2	1	4	3	2	1
04	4	3	2	1	4	3	2	1
05	4	3	2	1	4	3	2	1
06	4	3	2	1	4	3	2	1
07	4	3	2	1	4	3	2	1
08	4	3	2	1	4	3	2	1
09	4	3	2	1	4	3	2	1
10	4	3	2	1	4	3	2	1
11	4	3	2	1	4	3	2	1
12	4	3	2	1	4	3	2	1
13	4	3	2	1	4	3	2	1
14	4	3	2	1	4	3	2	1
15	4	3	2	1	4	3	2	1
16	4	3	2	1	4	3	2	1
17	4	3	2	1	4	3	2	1
18	4	3	2	1	4	3	2	1
19	4	3	2	1	4	3	2	1
20	4	3	2	1	4	3	2	1
21	4	3	2	1	4	3	2	1
22	4	3	2	1	4	3	2	1

A-3 Most beneficial in improving instruction is _____.
(number)

A-4 Teaching Experience
_____.
(number)

A-5 Years at current school
_____.
(number)

A-6 1 2 3

A-7 1 2

A-8 1 2 3 4

A-9 1 2 3 4 5 ↓

A-2 Other needed staff development workshop topics: _____

_____

_____

Turn the Answer Sheet over for Part B

ANSWER SHEET -- PART B

DIRECTIONS: *Circle the response that is appropriate for each question.*

B-1 1 2 3 4 5 6

B-2 1 2 3 4 5 6

B-3 1 2 3 4 5 6 7 8

B-4

	Strongly Attractive	Attractive	Inconse-quential	Detractive
01	4	3	2	1
02	4	3	2	1
03	4	3	2	1
04	4	3	2	1
05	4	3	2	1
06	4	3	2	1
07	4	3	2	1
08	4	3	2	1
09	4	3	2	1
10	4	3	2	1
11	4	3	2	1

↓

B-5 Number _____ is most attractive

B-6 1 2 3 4 5 6

B-7 1 2

B-8 1 2 3 4 5 6 7 ↓

B-9 1 2

B-10 1 2 3 4 5 6 ↓

B-11 1 2 3 4 5

B-12 1 2 3 4 5 6 7 8 9 10 11 12

B-13 1 2

B-14 1 2 3 4

B-15 1 2 3 4 5 6

B-16 1 2 3 4 5 6

B-17 1 2 3 4 5 6 7 8 9 ↓

specify number(s)

B-18

	Strongly Prefer	Mildly Prefer	Indifferent	Dislike	Not Appro-priate
01	4	3	2	1	5
02	4	3	2	1	5
03	4	3	2	1	5
04	4	3	2	1	5
05	4	3	2	1	5
06	4	3	2	1	5
07	4	3	2	1	5
08	4	3	2	1	5
09	4	3	2	1	5
10	4	3	2	1	5
11	4	3	2	1	5
12	4	3	2	1	5
13	4	3	2	1	5
14	4	3	2	1	5
15	4	3	2	1	5
16	4	3	2	1	5

↓

B-19 Most preferred: _____ (number)

B-20 Least preferred: _____ (number)

APPENDIX D

TEACHERS' INTERVIEW SCHEDULE

Interview Schedule

School _____ Respondent Number _____

Position _____ Years at School _____

Teaching Experience _____

(Question A-3)

1. You chose number ____ as the topic which could be most beneficial to someone wishing to improve instruction. Why?

_____

_____

_____

_____

_____

(Question A-2)

2. You listed _____ as other suggested topic(s) for inservice. Why? Explain.

_____

_____

_____

_____

_____

(Question A-8)

3. A. You described instruction in your classes as _____.

Explain. _____

_____

_____

_____

_____

3. B. How would you describe the schoolwide level of adaptation of instruction to meet student needs?

_____

_____

_____

_____

_____

4. Describe the inservice program(s) at your school in which you have participated over the last year(s).

_____

_____

_____

_____

_____

_____

_____

_____

_____

5. How could the staff development program at your school be improved?

_____

_____

_____

_____

_____

6. Describe in detail an ideal inservice program.

_____

_____

_____

_____

_____

APPENDIX E

STAFF DEVELOPMENT SURVEY

PRINCIPALS' INSTRUMENT PACKAGE

WISCONSIN RESEARCH AND DEVELOPMENT CENTER
FOR INDIVIDUALIZED SCHOOLING

UNIVERSITY OF WISCONSIN · MADISON · SCHOOL OF EDUCATION
1025 W. Johnson Street · Madison, Wisconsin 53706 · (608) 263-4200

October 26, 1978

Dear Colleague:

The mission of the Wisconsin Research and Development Center is to improve the quality of education by addressing the full range of issues and problems related to individualized schooling. This study focuses upon the vital area of staff development for teachers. The results will be directed toward improving the Center's staff development strategies and materials, currently under development.

I would like to ask you to please take the time to complete the attached questionnaire. The results of this study will contribute to a better understanding of the environment in which staff development programs are conducted as well as point to new and better staff development activities.

Thank you for your kind assistance.

Sincerely,

Judy Lehr

Judy Lehr
Project Assistant
IGE/S Project

Attachment

Before responding to this questionnaire, please review the brief overview (below) of Individually Guided Secondary Education.

Individually Guided Secondary Education

In schools which are implementing Individually Guided Secondary Education decision-making groups are formed with the primary purpose of giving the person who is responsible for carrying out the decision a significant role in the formation of that decision. Instruction and Advisory Units composed of students and a cooperative team of teachers are formed. Each team of teachers is responsible for arranging instruction that is suitable for the individual students of the Unit and also for advising the students regarding educational and other matters. Arranging instructional programs appropriate for the individual students of the Unit has two facets: First, arranging a total educational program of course work and other activities for each student each semester which is suited to the student's educational needs and career interests; and second, arranging instruction within each course so that it meets each student's abilities and other learning characteristics. Student attainment of instructional objectives is promoted through the development and/or selection and use of equipment, instructional materials, and supplies that are cost effective in terms of student learning and teacher time and effort. Evaluation of the students' learning and their instructional programs is carried out systematically in the attempt to promote student learning and to continually improve the quality of instruction. A program of home-school-community relations fosters communications between the school and the community, and particularly with the student's parents who share many important curriculum and career decision matters with the student, the student's advisor, and the guidance counselor. Students also participate in community learning activities and work experiences.

Responding to this inventory assumes that you are already carrying out some aspect of Individually Guided Secondary Education as previously described or that a decision has been made to start doing so within the next semester.

A. STAFF NEEDS INVENTORY

Please indicate what you perceive to be inservice professional development needs of teachers on your staff for the following 22 topical areas. Use these definitions:

Very Strong:	All teachers need inservice on this topic.
Strong:	Most teachers need inservice on this topic.
Moderate:	Some teachers need inservice on this topic.
None:	No teachers need inservice on this topic.

A-1 Topics for staff development programs:

Include the following introductory clause with each topic:

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

Circle one of the following:

4: Very Strong Need
3: Strong Need
2: Moderate Need
1: No Need

01 terminal objectives related to your field of study. 4 3 2 1

02 administrative arrangements that provide for an optimum amount of shared decision making. 4 3 2 1

03 team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students. 4 3 2 1

04 planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities, and evaluating outcomes. 4 3 2 1

05 ways of grouping students so as to optimally personalize their instruction. 4 3 2 1

06 procedures for optimum use of open classroom space or other large-group instructional areas. 4 3 2 1

07 skills in writing the learning objectives for a unit of instruction in your teaching field. 4 3 2 1

08 ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student. 4 3 2 1

09 advising arrangements in which each teacher serves as the educational, personal, and career advisor of a group of students with the assistance of a guidance counselor. 4 3 2 1

10 materials for use with students in the advisement program. 4 3 2 1

11 practices and programs in dealing with students' personal, social, emotional, and moral development. 4 3 2 1

12 techniques for motivating students. 4 3 2 1

13 practices and programs dealing with student career awareness, planning, and experiences. 4 3 2 1

14 learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers. 4 3 2 1

15 skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews. 4 3 2 1

A-1 Topics for staff development programs (continued):

Include the following introductory clause with each topic:

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

Circle one of the following:

4: Very Strong Need
3: Strong Need
2: Moderate Need
1: No Need

16 procedures for assessing student minimum competencies in the basic skills. 4 3 2 1

17 record-keeping procedures and practices regarding individual student achievement. 4 3 2 1

18 uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives. 4 3 2 1

19 means of using community resource personnel in the instructional program. 4 3 2 1

20 opportunities for student learning experiences in the community. 4 3 2 1

21 procedures for reporting student progress to parents. 4 3 2 1

22 means of using volunteer aides in the educational program. 4 3 2 1

A-2 Other needed staff development workshop topics: Please list: _____

_____

_____

_____

B. IMPLEMENTING STAFF DEVELOPMENT PROGRAMS:

1. How many staff development programs were sponsored last year for teachers at your school? _____

2. (a) Please estimate the total amount spent annually on staff development in your school a) $ _____

(b) Approximately what percent of this amount comes from school district revenues? b) _____

(c) Please specify the major non-district sources of revenue, if any.

_____

_____

3. Is participation in staff development programs mandatory? (check one)

Yes _____
No _____
Only for certain programs _____

4. (a) Please check all of the following benefits which are typically offered to participants attending staff development programs in your school:

a) school district credit for pay purposes a) _____
b) released time b) _____
c) university credit c) _____
d) stipend d) _____
e) travel expense e) _____
f) certificate of achievement f) _____
g) other (please specify) _____ g) _____

(b) Which one of the above-mentioned benefits do you feel is most effective in motivating teachers to participate in staff development programs. Please indicate your choice by entering the letter of the appropriate response in the space below.

_____

5. In your estimation, which three of the following reasons have prospective participants given most frequently for <u>not</u> attending staff development programs? Rank your three choices from "1" (most frequent expressed) to "3" (third most frequently expressed reason).

	Rank
a) The programs were not centered on topics which were of interest or use to me.	___
b) I could not obtain release time.	___
c) The programs were not scheduled at times I could attend.	___
d) I could not obtain the necessary funds for travel.	___
e) I generally find staff development programs to be a waste of time.	___
f) My job responsibilities did not permit my absence.	___

5. (continued)

g) My superiors took a dim view of my participation. ___
h) I was disappointed with past programs in which I have participated. ___
i) Other (please specify) _____ ___

6. Would you please rank the following eight factors by the degree to which they impede more widespread participation in your staff development programs. Place a "1" next to the factor which impedes your programs most, a "2" next to the second most troublesome factor, etc.

a) lack of support and participation from superiors. ___
b) lack of motivation by participants. ___
c) limitations imposed by teacher or administrator contracts ___
d) inadequate training staff for conducting programs ___
e) inadequate training materials ___
f) difficulty in scheduling the programs at appropriate times ___
g) lack of funds for providing released time ___
h) state or other non-district regulations ___

7. Please rank the following six items in terms of the difficulty they present to your staff in designing and implementing staff development programs. Place a "1" next to the item which gives you the most difficulty, a "2" next to the item which is second most troublesome, etc. If an item is irrelevant to your situation, place an "X" in the appropriate space.

a) scheduling programs at a time when all or most of the prospective participants can attend ___
b) developing or obtaining appropriate training materials ___
c) identifying topics which attract prospective participants to attend the program ___
d) identifying a site for the program which is both attractive, cost efficient, and convenient to prospective participants ___
e) identifying skilled trainers to lead the program ___
f) obtaining recognized scholars to speak at the program ___

8. Assume that your budget for providing inservice opportunities were suddenly increased by 25%, what would you spend this money on? Please assume you are free to use the money as you see fit.

_____
_____
_____
_____
_____

9. What, in your opinion, are the major problems which you face in providing effective in-service opportunities for your teachers.

_____

_____

_____

_____

_____

10. What percentage of your time would you estimate you devote to planning, implementing or evaluating staff development activities for your teachers?

_____%

11. Which of the following do you think should have primary responsibility for planning and organizing inservice professional development programs for teachers?

1) local teachers
2) school principals
3) central office staff
4) state education agencies
5) regional educational agency
6) colleges/universities
7) university-related agencies
8) professional educational organizations

12. Which of the following do you think should conduct inservice programs for teachers?

1) local teachers
2) school principals
3) central office staff
4) state education agency personnel
5) regional education agency personnel
6) professional educational organization staff
7) college/university professors
8) university-related agencies staff
9) combination of the above (specify)

APPENDIX F

BACKGROUND INFORMATION FORM

BACKGROUND INFORMATION SHEET

School _____

1. Staff

   a. Number of academic teachers _____

   b. Number of special education teachers _____

   c. Number of counselors _____

   d. Number of IMC (librarian, A.V.) staff _____

   e. Number of exploratory staff _____
      (Non-academic--phy.ed., music, shop, etc.)

   f. Number of aides _____ instructional____ clerical_____

   g. Number of administrators_____

   h. Are there unit leaders_____ If so, how many_____

      How are they chosen_____

      Are there department heads_____ If so, what areas_____

      _____

      Are unit leaders and department heads different people____

2. Principal-teacher meetings

   a. Are there faculty meetings_____ When_____

      What are the primary purposes of these meetings_____

      _____

   b. Who are members of your building level committee_____

      _____

      How often does this group meet_____

      What are the primary purposes of these meetings_____

c. Are teachers assigned to teams_____

How often do they meet together_____

What are the primary purposes of these meetings_____

_____

3. Students

a. Total population_____ Grade levels 6th_____

7th_____

8th_____

9th_____

4. Organization for Instruction

a. How are students and staff organized_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

b. Is there an advisory program_____ How is it organized?

_____

_____

How often do students meet with their advisors_____

_____

5. Describe how instruction is adapted to meet the individual needs of students_____

_____

_____

_____

6. IGE Experience

a. Indicate when your school began implementing some aspect of IGE.

_____ 1970 _____ 1972 _____ 1974 _____ 1976 _____ 1978

_____ 1971 _____ 1973 _____ 1975 _____ 1977

b. Indicate when your staff as a whole received training regarding IGE before and/or after implementing some aspects of IGE.

Year	At School	Away from School
_____ 1970	_____	_____
_____ 1971	_____	_____
_____ 1972	_____	_____
_____ 1973	_____	_____
_____ 1974	_____	_____
_____ 1975	_____	_____
_____ 1976	_____	_____
_____ 1977	_____	_____
_____ 1978	_____	_____

c. Indicate when part of your staff received training regarding IGE before and/or after implementing some aspects of IGE.

Year	At School	Away from School	Approximate Number of Staff
_____ 1970	_____	_____	_____
_____ 1971	_____	_____	_____
_____ 1972	_____	_____	_____
_____ 1973	_____	_____	_____
_____ 1974	_____	_____	_____
_____ 1975	_____	_____	_____
_____ 1976	_____	_____	_____
_____ 1977	_____	_____	_____
_____ 1978	_____	_____	_____

7. School Facility

a. Approximate age_____ b. What student population is the building planned for_____

c. Open space or self contained classrooms_____

8. Length of School Day

a. When are students in the building for instruction_____

_____

b. When are teachers required to be on duty_____

_____

9. School Schedule (Attach Copy)

10. Community

a. Size of district _____Number of elementary schools

_____Number of middle and junior high schools

_____Number of high schools

b. What is the approximate population of the school district?

_____

c. Area in which school is located (i.e., suburban, city, rural)

_____

APPENDIX G

INFORMED CONSENT FORM

Research Study

STUDIES OF ADMINISTRATION AND ORGANIZATION FOR INSTRUCTION:

ORGANIZATION OF THE SCHOOL FOR INDIVIDUALIZED INSTRUCTION

Informed Consent Form

The research study in which you are participating is designed to ascertain teachers' and principals' perceptions of the staff development program. The purpose of the study is to utilize organizational theory to refine and improve the structure of the school. In conducting the study, the researcher will administer questionnaires designed to gather participants' experiences, needs and preferences for staff development activities. Follow-up interviews with selected staff will attempt to clarify and expand the information in the questionnaires.

The anonymity of all participants is guaranteed and no individual, school, or school district will be identified in any reports of the research. It is expected that the results of this research will be of both theoretical and practical value to the field of education and to the public at large.

The University of Wisconsin-Madison has formally assured the United States Department of Health, Education, and Welfare (DHEW) that it will assure the protection of any human being exposed to risk in any project or program that DHEW or any of its agencies has been requested to support. A copy of this assurance will be made available to you upon request.

There are no known discomforts or risks associated with any of the procedures in which you will participate and such procedures are in conformity with accepted professional practice.

Any questions you may have concerning the procedures to be utilized in this study will be answered. You are free to withdraw your consent and to discontinue participation in this study at any time.

Please sign below to indicate your consent to participate in the study.

_____ _____

Name Date

APPENDIX H

DATA INPUT FORMAT

COMPUTER PROGRAM

Format for Entry of Raw Data
Teachers Data

Card #1

Card Column	Abbreviations	Descriptions
1-2	Sch	School identification
3-5	Resp	Respondent number
6	Pch "1"	Card number 1
7-28	EXP01 to EXP22	Respondents topical experience
29-50	INT01 to INT22	Respondents topical interest
51-52	Bene	Most beneficial topic in improving instruction
53-54	Tchr	Years of teaching experience
55-56	Year	Years of current school
57	Acad	Level of academic attainment
58	Team	Involvement in team teaching
59	Instr	Adaptation of instruction
60	Resp	Area of teaching responsibility

Card #2

Column		
1-2	Sch	School identification
3-5	Resp	Respondent number
6	Pch "2"	Card number 2
7	Paid	How much time would respondent attend inservice if paid

Card Column	Abbreviations	Descriptions
8	N Paid	How much time would respondent attend inservice if not paid
9	PLAN	Who should plan and organize teacher inservice
10-20	Rew01 to Rew11	Rewards for attending inservice
21-22	Attr	Most attractive reward
23	Yr 1	Number of inservice programs attended last year
24	Nuff	Did participants attend as many inservices as he/she would have liked last year
25-31	Reas1 to Reas7	Reasons for not attending inservice
32	Yr 2	Did participant attend as many inservices as he/she would have liked during last two years
33-38	Yes1 to Yes6	Reasons for not attending
39	When	When should inservice be scheduled
40-51	Mon1 to Mon12	Preferred month for inservice
52	Type	Type of inservice preferred
53	Meet	Meeting schedule for inservice
54	Day	Length of inservice
55	Size	Group size
56	Who	Who should conduct inservice
57-72	Mode01 to Mode16	Preferred inservice modes
73-74	M PREF	Most preferred mode
75-76	L PREF	Least preferred mode

Principal's Data

Card Column	Abbreviations	Descriptions
1-2	Sch	School identification
3-5	Resp	Respondent number
6	Pch "1"	Card number 1
7-28	Need01 to Need22	Teachers' topical needs
29-30	N Prog	Number of staff development programs last year
31-37	Reward01 to Reward07	Benefits offered to participants
38	Effect	Most effective benefit
39-47	No Att01 to No Att09	Reasons participants give for not attending inservice
48-55	Imped01 to Imped08	Impediments to participation in staff development
56-61	Diff01 to Diff06	Difficulties in designing and implementing staff development
62-63	Time	Time devoted to planning, implementing or evaluating staff development
64-71	Plan01 to Plan08	Who should plan and organize inservice
72-79	Card01 to Card08	Who should conduct inservice

APPENDIX I

STAFF DEVELOPMENT TOPICS

STAFF DEVELOPMENT TOPICS

IMPROVING THE PRESENT, OR DEVELOPING NEW . . . . . .

01 terminal objectives related to your field of study.

02 administrative arrangements that provide for an optimum amount of shared decision making.

03 team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students.

04 planning processes of a team related to setting objectives, allocating resources, assigning responsibilities, implementing activities and evaluating outcomes.

05 ways of grouping students so as to optimally personalize their instruction.

06 procedures for optimum use of open classroom space or other large-group instructional areas.

07 skills in writing the learning objectives for a unit of instruction in your teaching field.

08 ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student.

09 advising arrangements in which each teacher serves as the educational, personal, and career advisor of a group of students with the assistance of a guidance counselor.

10 materials for use with students in the advisement program.

11 practices and programs in dealing with students' personal, social, emotional, and moral development.

12 techniques for motivating students.

13 practices and programs dealing with student career awareness, planning and experiences.

14 learning materials for students to use individually or in small groups, e.g., learning activity packages, unipaks, or centers.

15 skills in the use of different modes of student evaluation, e.g., pencil-and-paper tests, performance tests, classroom observations, work samples, or interviews.

16 procedures for assessing student minimum competencies in the basic skills.

17 record-keeping procedures and practices regarding individual student achievement.

18 uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives.

19 means of using community resource personnel in the instructional program.

20 opportunities for student learning experiences in the community.

21 procedures for reporting student progress to parents.

22 means of using volunteer aides in the educational program.

APPENDIX J

ANALYSIS OF VARIANCE PROCEDURES

* * * * * * * * * ANALYSIS OF VARIANCE * * * * * * * * * * *

NEED01
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	46.621	11	4.238	3.556	.000
ACAD	14.512	2	7.296	6.088	.002
YEAR	10.401	5	2.080	1.745	.123
RESP	16.745	4	4.186	3.513	.008
EXPLAINED	46.621	11	4.238	3.556	.000
RESIDUAL	452.878	380	1.192		
TOTAL	499.500	391	1.277		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED02
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	12.851	11	1.168	.972	.471
ACAD	.402	2	.201	.167	.846
YEAR	8.522	5	1.704	1.419	.216
RESP	4.430	4	1.108	.922	.451
EXPLAINED	12.851	11	1.168	.972	.471
RESIDUAL	456.486	380	1.201		
TOTAL	469.336	391	1.200		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED03
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	18.620	11	1.693	1.474	.139
ACAD	2.013	2	1.006	.876	.417
YEAR	7.387	5	1.477	1.286	.269
RESP	7.761	4	1.940	1.689	.152
EXPLAINED	18.620	11	1.693	1.474	.139
RESIDUAL	436.481	380	1.149		
TOTAL	455.102	391	1.164		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED04
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	21.380	11	1.944	1.833	.047
ACAD	4.734	2	2.367	2.232	.109
YEAR	10.187	5	2.037	1.921	.090
RESP	3.530	4	.883	.832	.505
EXPLAINED	21.380	11	1.944	1.833	.047
RESIDUAL	403.045	380	1.061		
TOTAL	424.426	391	1.085		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED05
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	11.164	11	1.015	.878	.562
ACAD	2.725	2	1.363	1.179	.309
YEAR	5.362	5	1.072	.928	.463
RESP	2.526	4	.631	.546	.702
EXPLAINED	11.164	11	1.015	.878	.562
RESIDUAL	439.261	380	1.156		
TOTAL	450.426	391	1.152		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED06
BY ACAD
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NEED07
BY ACAD
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NEED08
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	19.111	11	1.737	1.367	.186
ACAD	6.345	2	3.172	2.495	.084
YEAR	5.544	5	1.109	.872	.500
RESP	6.535	4	1.634	1.285	.275
EXPLAINED	19.111	11	1.737	1.367	.186
RESIDUAL	483.133	380	1.271		
TOTAL	502.244	391	1.285		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED09
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	30.293	11	2.754	2.420	.006
ACAD	11.665	2	5.832	5.124	.006
YEAR	12.385	5	2.477	2.176	.056
RESP	3.048	4	.762	.670	.613
EXPLAINED	30.293	11	2.754	2.420	.006
RESIDUAL	432.499	380	1.138		
TOTAL	462.793	391	1.184		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED10
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	28.471	11	2.588	2.467	.005
ACAD	6.886	2	3.443	3.281	.039
YEAR	18.419	5	3.684	3.511	.004
RESP	1.485	4	.371	.354	.841
EXPLAINED	28.471	11	2.588	2.467	.005
RESIDUAL	398.751	380	1.049		
TOTAL	427.221	391	1.093		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING,
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED11
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	14.372	11	1.307	1.146	.324
ACAD	9.344	2	4.672	4.097	.017
YEAR	2.455	5	.491	.431	.827
RESP	1.848	4	.462	.405	.805
EXPLAINED	14.372	11	1.307	1.146	.324
RESIDUAL	433.340	380	1.140		
TOTAL	447.711	391	1.145		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED12
BY ACAD
YEAR
RESP

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NEED13
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	12.217	11	1.111	1.044	.407
ACAD	6.886	2	3.443	3.236	.040
YEAR	2.956	5	.591	.556	.734
RESP	1.609	4	.402	.378	.824
EXPLAINED	12.217	11	1.111	1.044	.407
RESIDUAL	404.344	380	1.064		
TOTAL	416.561	391	1.065		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED14
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	30.449	11	2.768	2.262	.011
ACAD	5.272	2	2.636	2.154	.117
YEAR	16.976	5	3.395	2.775	.018
RESP	5.445	4	1.361	1.112	.350
EXPLAINED	30.449	11	2.768	2.262	.011
RESIDUAL	464.969	380	1.224		
TOTAL	495.418	391	1.267		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED15
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	11.267	11	1.024	.912	.529
ACAD	4.264	2	2.132	1.898	.151
YEAR	4.058	5	.812	.723	.607
RESP	2.272	4	.568	.506	.732
EXPLAINED	11.267	11	1.024	.912	.529
RESIDUAL	426.722	380	1.123		
TOTAL	437.989	391	1.120		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED16
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	11.429	11	1.039	.856	.584
ACAD	7.464	2	3.732	3.075	.047
YEAR	1.337	5	.267	.220	.954
RESP	3.316	4	.829	.683	.604
EXPLAINED	11.429	11	1.039	.856	.584
RESIDUAL	461.119	380	1.213		
TOTAL	472.548	391	1.209		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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            NEED17
         BY ACAD
            YEAR
            RESP
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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	7.916	11	.720	.574	.850
ACAD	3.615	2	1.808	1.443	.238
YEAR	1.986	5	.397	.317	.903
RESP	1.593	4	.398	.318	.866
EXPLAINED	7.916	11	.720	.574	.850
RESIDUAL	475.992	380	1.253		
TOTAL	483.908	391	1.238		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED18
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	26.426	11	2.402	2.001	.027
ACAD	8.230	2	4.115	3.428	.033
YEAR	5.974	5	1.195	.995	.420
RESP	13.407	4	3.352	2.792	.026
EXPLAINED	26.426	11	2.402	2.001	.027
RESIDUAL	456.224	380	1.201		
TOTAL	482.650	391	1.234		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED19
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	16.290	11	1.481	1.258	.247
ACAD	3.061	2	1.530	1.300	.274
YEAR	5.289	5	1.058	.898	.482
RESP	5.192	4	1.298	1.102	.355
EXPLAINED	16.290	11	1.481	1.258	.247
RESIDUAL	447.503	380	1.178		
TOTAL	463.793	391	1.186		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED20
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	34.581	11	3.144	2.595	.003
ACAD	10.058	2	5.029	4.152	.016
YEAR	19.430	5	3.886	3.208	.008
RESP	2.047	4	.512	.423	.792
EXPLAINED	34.581	11	3.144	2.595	.003
RESIDUAL	460.294	380	1.211		
TOTAL	494.875	391	1.266		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED21
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	12.619	11	1.147	.910	.531
ACAD	3.104	2	1.552	1.230	.293
YEAR	4.234	5	.847	.671	.645
RESP	3.888	4	.972	.771	.545
EXPLAINED	12.619	11	1.147	.910	.531
RESIDUAL	479.289	380	1.261		
TOTAL	491.908	391	1.258		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

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NEED22
BY ACAD
YEAR
RESP

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SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	23.529	11	2.139	1.559	.109
ACAD	12.976	2	6.488	4.729	.009
YEAR	5.859	5	1.172	.854	.512
RESP	1.399	4	.350	.255	.907
EXPLAINED	23.529	11	2.139	1.559	.109
RESIDUAL	521.359	380	1.372		
TOTAL	544.887	391	1.394		

404 CASES WERE PROCESSED.
12 CASES (3.0 PCT) WERE MISSING.
DUE TO EMPTY CELLS OR A SINGULAR MATRIX,
HIGHER ORDER INTERACTIONS HAVE BEEN SUPPRESSED.

APPENDIX K

A MODEL INSERVICE PROGRAM--A SAMPLE SCHOOL

A Model Inservice Program--School A

Teachers at School A placed a high priority on staff development. Even though four full days were scheduled for staff development activities at the school last year, over 77 percent of teachers indicated they did not attend as many inservice programs last year as they would have liked. Teachers rated themselves most experienced in the areas of: "reporting student progress to parents", "ways of organizing curriculum areas and instructional sequences to maintain or to secure continuous progress for each student," "terminal objectives related to your field of study," "techniques for motivating students," and "learning materials for students to use individually or in small groups." The topics teachers rated as having the highest interest included: "techniques for motivating students," "team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students," "ways of grouping students so as to optimally personalize their instruction," "learning materials for students to use individually or in small groups," "terminal objectives related to your field of study," "procedures for optimum use of open classroom space or other large-group instructional areas," and "ways of organizing your curricular area and instructional sequences to maintain or to secure continuous progress for each student."

Based on participants' experiences and interests, a need (experience-interest) may be inferred for workshops on the following topics: "uses of the computer to assist you and other teachers in managing instruction and keeping records regarding students' attainment of instructional objectives," "opportunities for student learning experiences in the community," "techniques for motivating students," "ways of grouping students so as to optimally personalize their instruction," "procedures for optimum use of open classroom space or other large group instructional areas," "practices and programs dealing with student career awareness, planning, and experiences," and "means of using community resource personnel in the instructional program." The principal of School A indicated that most teachers had at least a moderate need for staff development workshops to be scheduled on all topics presented. Additionally the principal suggested workshops be scheduled on the topics, "ways for all students to meet success in academic areas" and "improving the school atmosphere".

When teachers were asked what workshop topic they would recommend to someone wishing to improve instruction, they chose, "ways of grouping students so as to optimally personalize their instruction," as the most beneficial topic. Other topics which teachers ranked as extremely helpful were; "team teaching arrangements that provide for optimum interaction among teachers and personalized instruction of students," "techniques

for motivating students," and "learning materials for students to use individually or in small groups." Teachers rated "school district paying expenses" and "the opportunity to hear a recognized scholar in the field" as the most attractive rewards for attending inservice activities.

Based upon the mean responses of the staff members at School A an "ideal" inservice program would be scheduled in February during a regular work week. Students would be dismissed from classes for two days in order that all teachers be able to attend the staff development activity. A recognized scholar in the field would introduce the inservice program which would be followed by work in discussion groups of six to ten teachers. The program would have been planned by the school's staff development committee based on input from teachers. When the inservice activity was concluded, each teacher would identify the changes they expected to initiate in their classrooms both immediate and long term as a result of the inservice program.

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